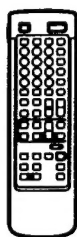


# SERVICE MANUAL

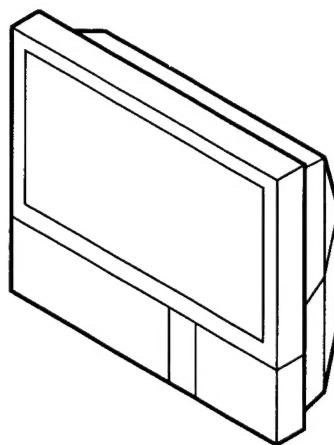
# LE-1 CHASSIS

MODEL	COMMANDER	DEST.
KL-37W1	RM-838	AEP
KL-37W1K	RM-838	OIRT
KL-37W1U	RM-838	UK

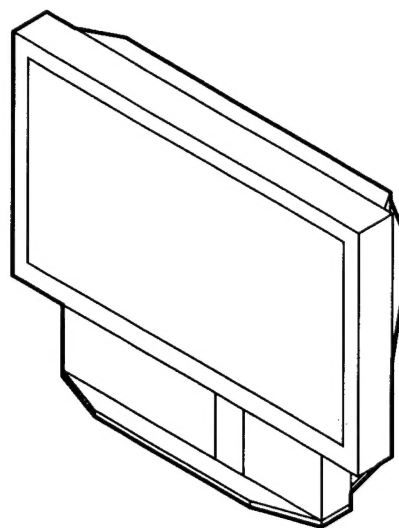
MODEL	COMMANDER	DEST.
KL-50W1	RM-838	AEP
KL-50W1K	RM-838	OIRT
KL-50W1U	RM-838	UK



RM-838



KL-37W1/37W1K/37W1U



※ Please file according to model size...

37

50

LCD PROJECTION TV  
**SONY**®

## Specifications

This product complies with the EU Directive 89/336/EEC.

Television system	B/G/H, D/K, I, L
Colour system	PAL/SECAM
Channel coverage	NTSC 3.58/4.43 (VIDEO IN) See "Receivable channels and channel displays" at the bottom.
Projected picture size	37 inches (KL-37W1) Approx. 94 cm diagonally 50 inches (KL-50W1) Approx. 127 cm diagonally
Terminals	
Rear	<ul style="list-style-type: none"> <li>➔ 1 21-pin Euro connector (CENELEC standard) inputs for audio and video signals</li> <li>- inputs for RGB</li> <li>- outputs of TV video and audio signals</li> <li>➔ 2/ ➔ 2 21-pin Euro connector</li> <li>- inputs for audio and video signals</li> <li>- inputs for S video</li> <li>- outputs for audio and video signals (selectable)</li> <li>➔ 4/ ➔ 4 21-pin Euro connector</li> <li>- inputs for audio and video signals</li> <li>- inputs for S video</li> <li>- outputs for audio and video signals (monitor out)</li> <li>➔ 2, ➔ 4 S video inputs</li> <li>- 4 pin DIN</li> <li>➔ Audio inputs (L, R) - phono jacks</li> <li>➔ S video output 4-pin DIN</li> <li>➔ Audio outputs - phono jacks</li> <li>➔ Audio outputs (variable)-phono jacks</li> </ul>
Front	<ul style="list-style-type: none"> <li>➔ 3 video input - phono jack</li> <li>➔ Audio inputs - phono jacks</li> <li>➔ 3 S video input - 4-pin DIN</li> <li>➔ Headphone iack: stereo miniack</li> </ul>
Sound output	2 x 5 W (music power) Centre 1 x 20 W
Power consumption	170 W
Dimensions (W x H x D)	920 x 825 x 390 mm (KL-37W1) 1,230 x 1,055 x 550 mm (KL-50W1)
Mass	29 kg (KL-37W1) 43 kg (KL-50W1)
Supplied accessories	See page 6.
Other features	Digital comb filter (High resolution) PAP (Picture-and-picture) FASTEXT 100 Hz Digital Plus Graphic Equalizer

## Receivable Channels and Channel Displays

	Receivable channels	Indication on the screen
B/G/H	E2..12 21..69	C02 C03 C04..C12 C21..C69
CABLE TV (1)	S1..41	S01 S02..S41
CABLE TV (2)	S01..S05 M1..M10 U1..U10	S42..S46 S01..S10 S11..S20
ITALIA	A B C D E F G H H1 H2 21..69	C11..C69
D/K	R01..R12 R21..R69	C02..C12 C21..C69
CABLE TV (1)		S01 S02..S41
CABLE TV (2)		S42 S43..S46
CABLE TV	B..Q, S21..41	S02, S03..S17, S21..S41
L	F2..F10 F21..F69	C01..C12 C21..C69
I	B21..B68	C21..C68

Design and specifications are subject to change without notice.


## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>		4	4-3.	Circuit Boards Location	40
<b>2. DISASSEMBLY</b>			4-4.	Schematic Diagrams and Printed Wiring Boards	40
2-1.	Rear Cover Removal	18	(1)	Schematic Diagrams of F1, F2, G, H, J, TA and TB Boards	41
2-2.	Chassis Assy Removal	18	(2)	Schematic Diagram of A (1/3) Board	51
2-3.	Service Position	18	(3)	Schematic Diagram of A (2/3) Board	55
2-4.	F2 Board and F2 Bracket Removal	18	(4)	Schematic Diagram of A (3/3) Board	57
2-5.	BB, B1 and J Boards Removal	19	(5)	Schematic Diagram of B1 (1/3) Board	59
2-6.	Power Block Removal	19	(6)	Schematic Diagram of B1 (2/3) Board	62
2-7.	Filter Removal	19	(7)	Schematic Diagram of B1 (3/3) Board	65
2-8.	Lamp Removal	20	(8)	Schematic Diagram of C (1/2) Board	69
2-9.	H and F1 Boards Removal	20	(9)	Schematic Diagram of C (2/2) Board	73
2-10-1.	Screen Frame Removal [KL-37W1/37W1K/37W1U]	20	(10)	Schematic Diagram of BB (1/3) Board	76
2-10-2.	Screen Frame Removal [KL-50W1/50W1K/50W1U]	20	(11)	Schematic Diagram of BB (2/3) Board	79
2-11.	C Board Removal	21	(12)	Schematic Diagram of BB (3/3) Board	82
2-12.	Optical Unit Removal	21	4-5.	Semiconductors	84
<b>3. CIRCUIT ADJUSTMENTS</b>			<b>5. EXPLODED VIEWS</b>		
3-1.	Electrical Adjustments	22	5-1.	Chassis [KL-37W1/37W1K/37W1U]	86
3-2.	Test Mode	25	5-2.	Front Cover [KL-37W1/37W1K/37W1U]	87
3-3.	Error Monitor and Detection	27	5-3.	Screen Mirror Block and Optics Unit [KL-37W1/37W1K/37W1U]	88
3-4.	Registration Adjustment	28	5-4.	Chassis [KL-50W1/50W1K/50W1U]	89
<b>4. DIAGRAMS</b>			5-5.	Front Cover [KL-50W1/50W1K/50W1U]	90
4-1.	Block Diagrams	29	5-6.	Screen Mirror Block and Optics Unit [KL-50W1/50W1K/50W1U]	91
4-2.	Frame Schematic Diagram	38	<b>6. ELECTRICAL PARTS LIST</b>		92

### CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

### SAFETY-RELATED COMPONENT WARNING!!

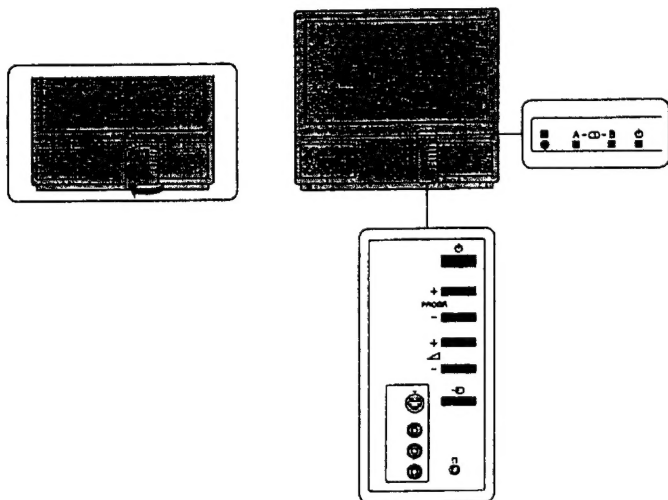
COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SECTION 1 GENERAL

### Overview

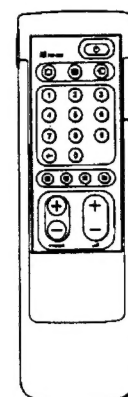
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

#### TV set-front



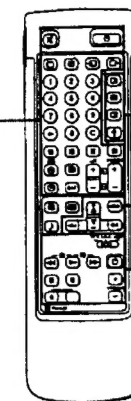
Symbol	Name	Refer to page
⏻	Main power switch	14
⏻	Standby indicator	14
A-CD-B	Stereo A/B indicators	18
PROG +/-	Programme	14
Δ +/-	Volume buttons	14
⏻	Input select buttons	15
🎧	Headphones jack	23
⏻ 3, ⏻ 3, ⏻ 3	Input jacks (S video/video/audio)	24

#### Remote commander



Simple side

TV/Teletext operation



Full-Function side

PAP operation

Menu operation

Video operation

Note  
The SAT button does not operate with this TV.

#### TV/Teletext operation

Symbol	Name	Refer to page
⏻	Mute on/off button	15
⏻	Standby button	14
⏻	TV power on/TV mode selector button	14
📺	Teletext button	15
⏻	Input mode selector	15
⏻	Output mode selector	24
1,2,3,4,5,6,7,8,9 and 0	Number buttons	14
—	Double-digit entering button	14
C	Direct channel entering button	10
Δ +/-	Volume control button	14
PROG +/-	Programme selectors	14
📺	Teletext page access buttons	20
●	Picture adjustment button	16
🔊	Sound adjustment button	16
📺	On-screen display button	15
📺	Teletext hold button	20
📺	Time display button	15
■ ■ ■ ■	Fastext buttons	20
📺	"Freeze" button	15
📺	Button to change Screen Format	15

#### PAP (Picture-and-picture) operation

Symbol	Name	Refer to page
📺	PAP on/off button	18
↑	PAP source selector	18
📺	Swap button	18
📺	PAP freeze button	18

#### Menu operation

Symbol	Name	Refer to page
MENU	Menu on/off button	7
Δ +/- ▽	Select buttons	7
OK	OK(confirming)button	7
←	Back button	7

#### Video operation

Symbol	Name	Refer to page
VTR1/2/3, MDP	Video equipment selector	26
◀ ▶ ▶ ▶	Video equipment operation buttons	26
PROG +/-		

GB



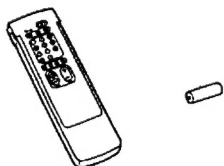
# Getting Started

## Step 1 Preparation

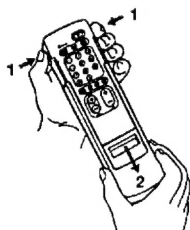
### 1 Check the supplied accessories

When you've taken everything out of the carton, check that you have these items:

- RM-838 Remote Commander
- One IEC designation R6 battery
- Lamp (1)
- Wrench (1)



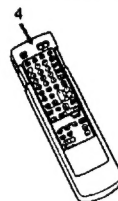
### 2 Insert the battery into the Remote Commander



Remove the cover.

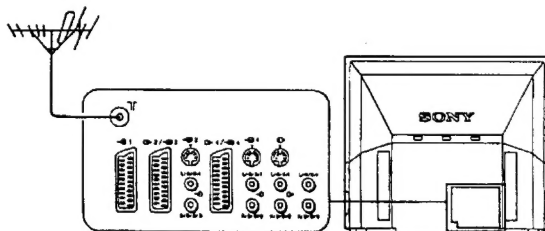


Check the correct polarities.



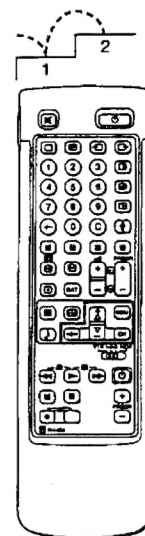
Refit the outside cover, making sure that the Full-Function side is visible to use the menu in step 2.

### 3 Connect the aerial



Fit an IEC aerial connector attached to 75-ohm coaxial cable (not supplied) to the 1" socket at the rear of the TV.

## Step 2 Tuning in to TV Stations



Once you have set up the TV, you can choose the language of the menu. Then, you should preset the channels (up to 100 channels) by choosing either the automatic or manual method. The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one.

### Before you begin

- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

### 1 Choose a language

- 1 Press  $\odot$  on the TV.  
The TV will switch on. If the standby indicator on the TV is lit, press  $\odot$  or a number button on the Remote Commander.
- 2 Press the MENU button.  
The LANGUAGE menu appears. (See Fig. 1.)



- 3 Select the language you want with  $\Delta$  + or  $\nabla$  - and press OK.

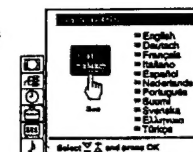


Fig. 1

### 2 Display the menu

Press MENU.

The main menu appears. (See Fig. 2.)

Using  $\Delta$  + or  $\nabla$  - select the symbol  $\square$  and press OK.

Now, choose one of the methods described overleaf:

"Preset Channels Automatically"

or

"Preset Channels Manually"

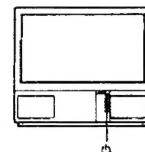


Fig. 2

To go back to main menu  
Keep pressing  $\leftarrow$ .

To go back to the normal TV picture  
Press MENU. Normal TV picture will be restored after one minute if menu functions are not selected.

Note on the Demo function  
If you choose Demo in the installation menu, you can see a sequential demonstration of the menu functions. Press MENU to stop the function.

### 3 Preset channels automatically


- 1 Select the symbol  for "Preset" with  $\Delta$  or  $\nabla$  and press OK. The PRESET menu appears. (See Fig. 3.)
- 2 Select "Auto Programme" with  $\Delta$  or  $\nabla$  and press OK. The AUTO PROGRAMME menu appears. (See Fig. 4.)
- 3 Press OK.  
Select if necessary the TV broadcast system (B/G for Western European or D/K for Eastern European countries) with  $\Delta$  or  $\nabla$  and press OK. The first element of the "PROG" number will be highlighted.
- 4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with  $\Delta$  or  $\nabla$  or the number buttons (e.g., For "04," select "0" here) and press OK.  
The second element of "PROG" will be highlighted.
- 5 Select the second element of the double-digit number with  $\Delta$  or  $\nabla$  or the number buttons (e.g., For "04," select "4" here) (See Fig. 5) and press OK.
- 6 Select "C" or "S" with  $\Delta$  or  $\nabla$  and press OK.  
The automatic channel presetting starts.  
When presetting is finished, the preset menu reappears. All available channels are now stored on successive number buttons. Press menu to restore normal TV picture.



Fig. 3

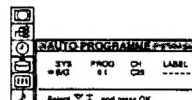


Fig. 4

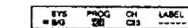


Fig. 5

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.


If you have made a mistake  
Press  $\leftarrow$  to go back to the previous position.

To return to the main menu  
Keep pressing  $\leftarrow$ .

To go back to the normal TV picture  
Press MENU.

To tune in a channel by frequency  
After selecting F in step 6, enter three digits using the number buttons.

### 3 Preset channels manually

- 1 Select the symbol  for "Preset" with  $\Delta$  or  $\nabla$  and press OK. The PRESET menu appears. (See Fig. 6.)
- 2 Select "Manual Programme Preset" with  $\Delta$  or  $\nabla$  and press OK. The MANUAL PROGRAMME PRESET menu appears. (See Fig. 7.)
- 3 Using  $\Delta$  or  $\nabla$ , select the programme position (number button) to which you want to preset a channel, and press OK.
- 4 Select, if necessary the TV broadcast system or a video input source (EXT) with  $\Delta$  or  $\nabla$ .
- 5 Then press OK. The CH position will be highlighted. (See Fig. 8.)
- 6 Using  $\Delta$  or  $\nabla$ , select C (to preset a regular channel), S (cable channel) or F (to tune in by frequency) and press OK. The first element of the "CH" number will be highlighted.  
If you have selected EXT in step 5, select the video input source with  $\Delta$  or  $\nabla$ . (See Fig. 9.)  
There are two ways to preset channels. If you know the channel number, go to step "7-Manual," or  
If you don't know the channel number, go to step "7-Search."

#### 7 Manual

- a Select the first element of the "CH" number with  $\Delta$  or  $\nabla$  or the number buttons and press OK.  
The second element of the "CH" number will be highlighted.
- b Select the second element of the number with  $\Delta$  or  $\nabla$  or the number buttons.  
The selected number appears. (See Fig. 10.)
- c Press OK  
The "SEARCH" position is highlighted and the selected channel is now stored. (See Fig. 11.)
- d Press OK until the cursor appears by the next programme position.
- e Repeat steps 3 to 7 to preset other channels.

#### 7 Search

- a Press OK repeatedly until the colour of the SEARCH position changes.
- b Start searching for the channel with  $\Delta$  (up) or  $\nabla$  (down).  
The CH position changes colour. (See Fig. 12.)  
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)
- c Press OK if you want to store this channel. If not, press  $\Delta$  or  $\nabla$  to continue channel searching.
- d Press OK until the cursor appears by the next programme position.
- e Repeat steps 3 to 7 to preset other channels.

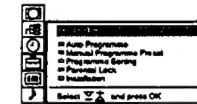


Fig. 6

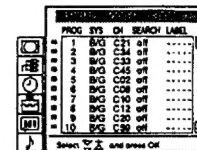


Fig. 7



Fig. 8



Fig. 9

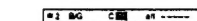


Fig. 10



Fig. 11

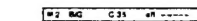


Fig. 12

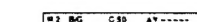


Fig. 13

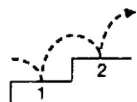
To go back to the main menu  
Keep pressing  $\leftarrow$ .

To stop automatic channel presetting  
Press  $\leftarrow$  on the Remote Commander.

#### Notes

- After presetting the channels automatically, you can check which channels are stored on which programme positions.  
For details, see "Displaying the Programme Table" on page 15.
- You can sort the programme positions to have them appear on screen in the order you like. For details, see "Sorting Programme Positions" on page 10.

## Additional Presetting Functions



This section shows you additional presetting functions such as sorting or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

### Before you begin

- Check that the Full Function side of the Remote Commander is visible.
- Locate the Menu operation buttons.

### Sorting Programme Positions

With this function, you can sort the programme positions to a preferable order.

- 1 Press MENU to display the main menu.
- 2 Select the symbol for "Preset" with  $\Delta$  or  $\nabla$  and press OK. The PRESET menu appears.
- 3 Select "Programme Sorting" with  $\Delta$  or  $\nabla$  and press OK. The PROGRAMME SORTING menu appears. (See Fig. 14.)
- 4 Using  $\Delta$  or  $\nabla$ , select the programme position you want to move to another and press OK. The colour of the selected position changes. (See Fig. 15.)
- 5 Using  $\Delta$  or  $\nabla$ , select the programme position to which you want to move the channel of the programme position selected in step 4 and press OK. Now the programme positions have been sorted. (See Fig. 16.)
- 6 Repeat steps 4 and 5 to sort other programme positions.

### PROGRAMME SORTING

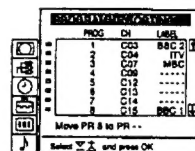
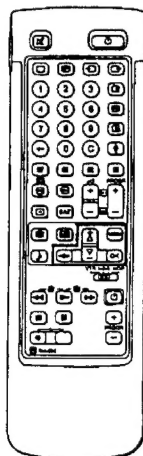


Fig. 14



Fig. 15

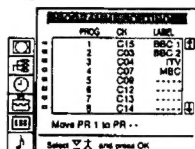


Fig. 16

For higher programme positions  
The display scrolls automatically.

If you have made a mistake  
Press  $\leftarrow$  to go back to the previous position  
To go back to main menu  
Keep pressing  $\leftarrow$ .

To go back to the normal TV picture  
Press MENU.

### INSTALLATION

## Using "Further Programme Preset"

Using the menu "Further Programme Preset" you can

- a) in case of a strong local aerial signal (striped picture) attenuate the signal individually for each programme position (RF attenuator).
- b) individually adjust and store the volume level of each channel (Volume offset).
- c) in case of a strong sound signal (distorted sound), attenuate the sound signal for each programme position.
- d) use the manual fine tuning to obtain a better picture reception, if the picture is distorted. Normally the AFT (automatic fine tuning) is operating.

- 1 Press MENU to display the main menu.
- 2 Select the symbol for "Preset" with  $\Delta$  or  $\nabla$  and press OK. The PRESET menu appears.
- 3 Select "Installation" with  $\Delta$  or  $\nabla$  and press OK. The INSTALLATION menu appears.
- 4 Select "Further Programme Preset" with  $\Delta$  or  $\nabla$  and press OK. The FURTHER PROGRAMME PRESET menu appears (See Fig. 17).
- 5 Using  $\Delta$  or  $\nabla$  select the desired programme position and press OK once to select a) "ATT" (RF Attenuator), twice to select b) "VOL" (Volume offset), three times to select c) "IN-AMP" (Input Amplifier) or four times to select d) AFT (Automatic Fine Tuning). The selected item changes colour.

To adjust or change:

- a) **RF attenuator (ATT)**  
Using  $\Delta$  or  $\nabla$  select "On" for the selected programme position. Press OK to confirm the selection. Repeat step 5 to attenuate other programme positions.
  - b) **Volume offset (VOL)**  
Using  $\Delta$  or  $\nabla$  you can adjust the volume level for the selected programme position within a range from -7 to +7. Press OK to store the volume level. Repeat step 5 to set the volume level for other programme positions.
  - c) **IN-AMP (input amplifier)**  
Using  $\Delta$  or  $\nabla$  select "Off" for the selected programme position. Press OK to confirm the selection. Repeat step 5 to switch off the input amplifier for other programme positions.
  - d) **AFT**  
Using  $\Delta$  or  $\nabla$  you can fine-tune the channel within a range from -15 to +15. Press OK to store the fine-tuned level. Repeat step 5 to fine-tune the other channels.
- 6 Press MENU to return to the normal TV mode.

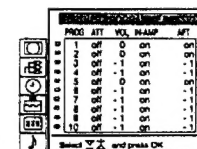


Fig. 17

To reactivate AFT  
(Automatic Fine Tuning)  
Repeat from the beginning and select "ON" in step 5.

GB



## Skiping Programme Positions

You can skip unused programme positions when selecting programmes with PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.

- 1 Press MENU to display the main menu.
- 2 Select the symbol for "Preset" with Δ+ or ∇- and press OK. The PRESET menu appears.
- 3 Select "Manual Programme Preset" with Δ+ or ∇- and press OK. The MANUAL PROGRAMME PRESET menu appears. (See Fig. 18.)
- 4 Using Δ+ or ∇-, select the programme position which you want to skip and press OK. The "SYS" position changes colour.
- 5 Press Δ+ or ∇- until "----" appears in the SYSTEM position. (See Fig. 19.)
- 6 Press OK. (See Fig. 20.) When you select programmes using the PROGR +/- buttons, the programme position will be skipped.
- 7 Repeat steps 4 to 6 to skip other programme positions.

If you have made a mistake  
Press ← to go back to the previous position.

To go back to main menu  
Keep pressing →.

To go back to the normal TV picture  
Press MENU.

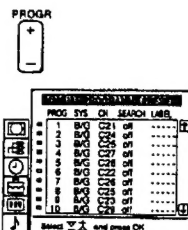


Fig. 18



Fig. 19



Fig. 20

## Captioning a Station Name

Programme names are usually automatically taken from Teletext if available. You can also "name" a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

- 1 Press MENU to display the main menu.
- 2 Select the symbol for "Preset" with Δ+ or ∇- and press OK. The PRESET menu appears.
- 3 Select "Manual Programme Preset" with Δ+ or ∇- and press OK. The MANUAL PROGRAMME PRESET menu appears. (See Fig. 21.)
- 4 Using Δ+ or ∇-, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.
- 5 Select a letter or number with Δ+ or ∇- and press OK. The next element will be highlighted. Select other characters in the same way. If you want to leave an element blank, select - and press OK. (See Fig. 22.)
- 6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 23.)
- 7 Repeat steps 5 and 6 to caption names for other channels.

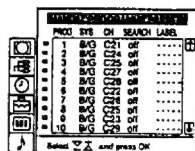


Fig. 21



Fig. 22

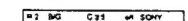


Fig. 23



## Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

- 1 Press MENU to display the main menu.
- 2 Select the symbol for "Preset" with Δ+ or ∇- and press OK. The PRESET menu appears.
- 3 Select "Parental Lock" with Δ+ or ∇- and press OK. The PARENTAL LOCK menu appears. (See Fig. 24.)
- 4 Using Δ+ or ∇-, select the programme position you want to block and press OK. The symbol appears in front of the programme number indicating that this programme is now blocked. (See Fig. 25.)
- 5 Repeat step 4 to block other programme positions.

### Cancelling blocking

- 1 On the PARENTAL LOCK menu, select the programme position you want to unblock with Δ+ or ∇-.
- 2 Press OK. The symbol disappears indicating that the blocking has been cancelled.

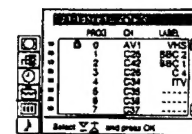


Fig. 24

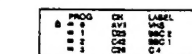


Fig. 25

## Tuning in a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

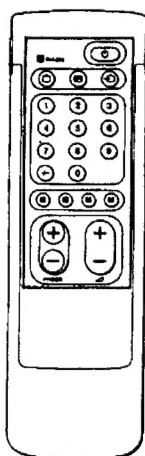
- 1 Press C on the Remote Commander. For cable channels, press C twice. The indication "C" ("S" for cable channels) appears on the screen. (See Fig. 26.)
- 2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4). The channel appears. However, the channel will not be stored.



Fig. 26

# Operating Instructions

## Watching the TV



If no picture appears when you depress  $\odot$  on the TV and if the standby indicator on the TV is lit, the TV is in standby mode. Press  $\odot$  or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

### Switching the TV on and off

**Switching on**  
Depress  $\odot$  on the TV.

#### Switching off temporarily

Press  $\odot$  on the Remote Commander.  
The TV enters standby mode and the standby indicator on the front of the TV lights up in red.

To switch on again

Press  $\odot$ , PROG  $\pm$ , or one of the number buttons on the Remote Commander.

#### Switching off completely

Depress  $\odot$  on the TV and indicator on the front of the TV lights up in amber.

### Selecting TV Programmes

Press PROG  $\pm$  or press the number buttons.

To select a double-digit number

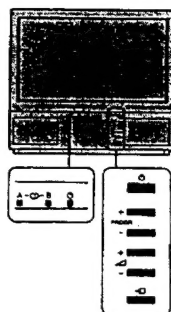
Press  $\pm$ , then the numbers.  
For example, if you want to choose 23, press  $\pm$ , 2 and 3.

### Adjusting the Volume

Press  $\Delta$   $\pm$ .

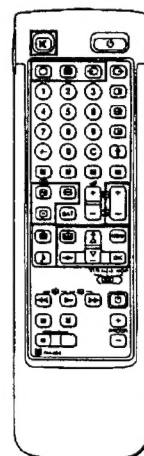
### Operating the TV Using the Buttons on the TV

To select the programme number, press the PROG  $\pm$  buttons.  
To adjust the volume, press the  $\Delta$   $\pm$  buttons.  
To select the video input picture, press the  $\square$  button.  
To reset picture and sound controls to the factory preset level (RESET function), press PROG  $\pm$  buttons simultaneously.



For details of the teletext operation, refer to page 20.

For details of the video input picture, refer to page 24.



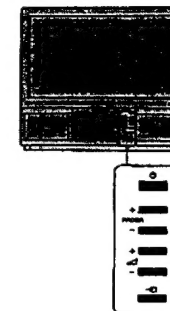
## Watching Teletext or Video Input

### Watching teletext

- 1 Press  $\square$  to view the teletext.
- 2 For teletext operation, enter a 3-digit page number with the number buttons to select a page.  
For fasttext operation, press one of the coloured buttons.  
For both operations, press  $\square$  (PAGE  $+$ ) for the next page or  $\square$  (PAGE  $-$ ) for the preceding page.
- 3 To go back to the normal TV picture, press  $\odot$ .

### Watching a video Input picture

- 1 Press  $\square$  repeatedly until the desired video input appears.
- 2 To go back to the normal TV picture, press  $\odot$ .



## More Convenient Functions

Use the Full-Function side of the Remote Commander.

### Displaying the on screen indications

- Press  $\square$  once to display all the indications. They will disappear after a few seconds.
- Press  $\square$  twice to have the programme number and label stay on screen. Press twice again to make the indications disappear.

### Muting the sound

Press  $\square$ .  
To resume normal sound, press  $\square$  again.

### Displaying the time

Press  $\square$ . This function is available only when teletext is broadcast. To make the time display disappear, press  $\square$  again.

### Displaying the Programme Table

Press OK. A Programme Table will be displayed on the left side of the TV screen. (See Fig. 27.)

### Selecting TV programmes

Press PROG  $\pm$  or select the desired programme position using  $\Delta$   $\pm$  and press OK.

To make the Programme Table disappear, press MENU.

1	BBC	1
2	SAT	2
3	TV5	3
4	C22	4
5	C15	5
6	RTL	6
7	SKY	7
8	S34	8
9	AV1	9
10	MTV	10

Fig. 27

### Freezing the Picture

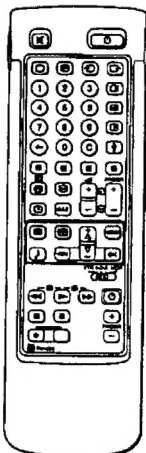
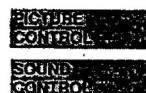
When watching the TV you have the possibility to "freeze" the picture. Press  $\square$ . Press the button again to return to the normal TV picture.

### Changing the Screen format

Press  $\square$  repeatedly to change the Screen mode as follows:

- 4:3 (4:3 picture)
    - Smart (imitation of 16:9 for 4:3 broadcast)
    - Zoom (imitation of 16:9 for movies broadcast in cinemascopic format)
    - or
    - Wide (for 16:9 broadcast).
- See also page 19 for more information.

# Adjusting and Setting the TV Using the Menu



If you have made a mistake  
Press  $\leftarrow$  to go back to the previous position.  
To go back to the main menu  
Keep pressing  $\leftarrow$ .

**Notes**  
• HUE is only available for NTSC colour systems.  
• Hall Surround is not available via headphones.

**Note on LINE OUT**  
The audio level and the dual sound mode output from the G- jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

When watching a video input source with stereo sound  
You can select DUAL SOUND to change the sound.

## Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. You can also select dual sound (bilingual) programmes when available or adjust the sound for listening with the headphones. Also you have the possibility to adjust the sound to your individual taste using the Graphic Equalizer and special Sound effects.

- 1 Press  $\blacksquare$  (for picture) or  $\blacktriangledown$  (for sound) on the Remote Commander.  
or  
Press MENU and select the symbol  $\blacksquare$  for Picture Control or  $\blacktriangledown$  Sound Control, then press OK.  
The PICTURE CONTROL or SOUND CONTROL menu appears. (See Fig. 28 or Fig. 29.)
- 2 Using  $\Delta+$  or  $\nabla-$ , select the item you want to adjust and press OK. The selected item changes colour. (See Fig. 30.)
- 3 Adjust the setting with  $\Delta+$  or  $\nabla-$  and press OK. The cursor appears beside the next item (at the left margin). (See Fig. 31.)  
For the effect of each control, see the table below.
- 4 Repeat steps 2 and 3 to adjust other items.
- 5 Press MENU to return to TV picture.

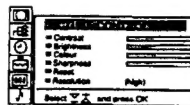


Fig. 28



Fig. 29



Fig. 30



Fig. 31

**Note:** The modifications made in "USER" mode will be stored. All other settings are reset to factory-set level when you change to another mode.

## TIMER

To switch off the timer  
Select "OFF" in step 3.

To check the remaining time  
Press G.

To go back to the normal TV picture  
Press MENU.

## Graphic Equalizer

Using this function you can individually adjust the sound by cutting and boosting selected frequencies. You can also select between the following modes:

Flat  $\rightarrow$  Pop  $\rightarrow$  Rock  $\rightarrow$  Jazz  $\rightarrow$  Vocal  $\rightarrow$  User

- 1 Select "Sound Control" in the main menu, then select "Graphic Equalizer" using  $\Delta+$  or  $\nabla-$  and press OK. The GRAPHIC EQUALIZER menu appears (See Fig. 32).
- 2 Press OK. The colour of "Mode" changes. Select the desired mode with  $\Delta+$  or  $\nabla-$  and press OK.
- 3 If you want to modify a mode, select the desired bar of a frequency band using  $\Delta+$  or  $\nabla-$  and press OK. The selected frequency changes colour. Using  $\Delta+$  or  $\nabla-$  adjust the level of frequency and press OK. In this way you can adjust all 5 graphic bars.
- 4 Press MENU to return to the normal TV mode.

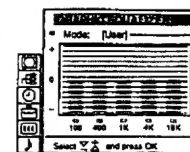


Fig. 32

Flat  
Pop  
Rock  
Jazz  
Vocal  
User

## Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

- 1 Using  $\Delta+$  or  $\nabla-$  select the symbol  $\odot$  for "Timer" and press OK. The TIMER menu appears (see Fig. 33).
- 2 Press OK.  
The time period option changes colour.
- 3 Select the time period with  $\Delta+$  or  $\nabla-$ .  
The time period (in minutes) changes as follows:  
10  $\rightarrow$  20  $\rightarrow$  30  $\rightarrow$  40  $\rightarrow$  50  $\rightarrow$  60  $\rightarrow$  70  $\rightarrow$  80  $\rightarrow$  90
- 4 After selecting the time period, press OK.  
The cursor moves back to the left margin and the timer starts counting.  
One minute before the TV switches into standby mode, a message is displayed on the screen.

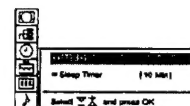


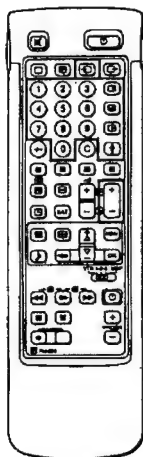
Fig. 33

## Effect of each control

PICTURE CONTROL	Effect
Contrast	Less $\rightarrow$ More
Brightness	Darker $\rightarrow$ Brighter
Colour	Less $\rightarrow$ More
Hue	Greenish $\rightarrow$ Reddish
Sharpness	Softer $\rightarrow$ Sharper
RESET	Resets picture to the factory preset levels.
Resolution	Normal high: obtain a high quality picture

SOUND CONTROL	Effect
Graphic Equalizer	(See page 17 for more information)
Surround Mode	Off: Normal $\rightarrow$ Dolby $\rightarrow$ Hall
Hall Effect	Choice between different hall effects Room $\rightarrow$ Dome $\rightarrow$ Arena
Dual Sound	A: left channel B: right channel Stereo Mono The selected mode of the A-CD-B indicator on the TV lights up.
Headphones:	
Volume	Less $\rightarrow$ More
Dual Sound	A: channel 1 $\rightarrow$ B: channel 2 $\rightarrow$ PAP (if PAP is switched on you can select the PAP sound for the headphones) Stereo $\rightarrow$ Mono

## PAP (Picture and Picture)



With this function you can display two screens at the same time. In this way you can watch two TV programmes at the same time. Also you can watch or monitor the video output from any connected equipment (for example from a VCR) while watching TV or vice versa. For information about connection of other equipment, refer to page 23.



### Switching PAP on and off

Press **□** to display the screens in 8:9 format.

The PAP screen will be displayed next to the main TV screen. The PAP screen will come from the source chosen when the TV was last used.

To switch PAP off  
Press **□** repeatedly.

### Selecting PAP source

Press **↑**.

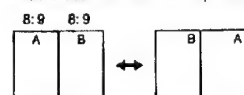
The symbol **↑** will be displayed at the bottom, left-hand corner of the screen.

Press **PROGR +/-**, the number buttons or **◀▶** to select the desired source for the PAP screen.

### Swapping screens

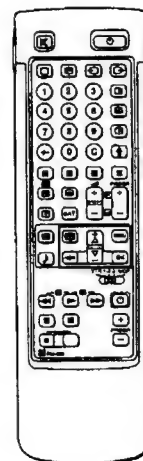
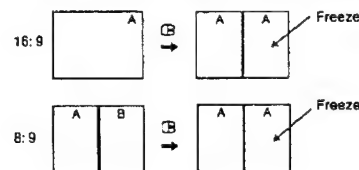
Press **↔**.

The main screen will switch the picture with the PAP screen.



### Freezing the picture

You have the possibility to "freeze" the picture of the PAP screen. Press **⏸** once to freeze and twice to return to the normal screen.



When you want to select the screen mode  
You can also select the screen mode by pressing the **⏸** button on the Remote Commander.

## Operating Screen Mode/PAP using the Menu

Using the Screen Mode menu you have the possibility to change the aspect ratio for the TV display for wide screen effects, operate the PAP Mode or reproduce the main picture image by image (Strobe function).

- 1 Press **MENU** to display the main menu.
- 2 Select the symbol **□** for "Screen Mode" with **Δ** or **∇** and press **OK**. The **SCREEN MODE** menu appears (See Fig. 34).

You have the choice among the following modes:

- 4:3 for normal ratio 4:3 (See Fig. 35).
- Smart: imitation of wide screen effect (16:9) for 4:3 broadcasts (See Fig. 36).
- Zoom: imitation of wide screen effect (16:9) for movies broadcast in cinemascopic format (See Fig. 37).
- or
- Wide: for 16:9 broadcasts (See Fig. 38).

- a) **Changing the Screen position (only for Zoom mode)**  
When using the Zoom mode part of the picture at the top and bottom will be cut off. With the help of the function "Screen position" you can move the screen up- or downwards in order to see the cut-off part of the screen (e.g., to read the subtitles).  
Using **Δ** or **∇** select "Screen position" and press **OK**. The selected item changes colour. Using **Δ** or **∇** adjust the screen position and press **OK**.
- b) **Strobe Mode**  
Using **Δ** or **∇** select "Strobe" and press **OK**. Now the TV picture is displayed image by image, creating a slow motion effect (See Fig. 39). Using **Δ** or **∇** select the speed of the motion (3 different speeds are available). Press **OK** to return to the normal TV mode.
- c) **Switching PAP on and off**  
Using **Δ** or **∇** select "PAP" and press **OK**. Using **Δ** or **∇** select "1" to display the PAP screen in 8:9 format, "2" for 4:3 format and "OFF" to switch it off and press **OK**.
- d) **Freezing the PAP screen**  
Using **Δ** or **∇** select "Clip Board" and press **OK**. Using **Δ** or **∇** select "On" to freeze the PAP screen and "Off" to restore the normal picture.

## Auto Format

If you preset Auto Format to ON and the 16:9 format signal is being transmitted, the screen mode automatically changes from any mode to the 16:9 mode. When the 16:9 format programme is finished, the screen mode automatically returns to the previous mode.

- 1 Press **MENU** to display the main menu.
- 2 Select the symbol **□** for "Screen Mode" with **Δ** or **∇** and press **OK**. The **SCREEN MODE** menu appears.
- 3 Select "Auto Format" with **Δ** or **∇** and press **OK**.
- 4 Select **ON** or **OFF** with **Δ** or **∇** and press **OK**.



Fig. 34



Fig. 35

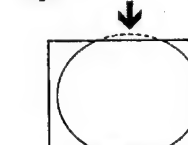


Fig. 36



Fig. 37

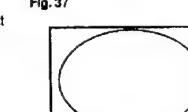


Fig. 38

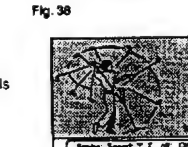
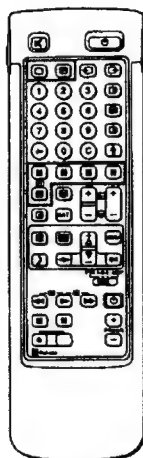


Fig. 39

GB

- Notes
- RGB input source cannot be displayed in PAP.
  - PAP is not available in the Zoom mode.
  - The sound of the right screen is only available via the headphones.
  - The picture quality of the TV screen and PAP may differ.

# Teletext



**Note**  
Teletext errors may occur if the broadcasting signals are weak.

**With the simple side of the Remote Commander**  
You can switch teletext on and off, operate Fastext, and directly select page numbers.

**Note**  
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

## Direct Access Functions

### Switching Teletext on and off

- 1 Select the TV channel which carries the teletext broadcast you want to watch.
- 2 Press **OK** to switch on teletext.  
A teletext page will be displayed (usually the index page). If there is no teletext broadcast, "No text available" is displayed on the information line at the top of the screen.

To switch teletext off  
Press **OFF**.

### Selecting a teletext page

**With direct page selection**

Use the number buttons to input the three digits of the chosen page number.  
If you have made a mistake, type in any three digits. Then re-enter the correct page number.

**With page-catching**

- 1 Select a teletext page with a page overview (e.g. index page).
- 2 Press **OK**. Using **Δ+** or **∇-**, select the desired page. "Page Catching" will be displayed on the information line. Press **OK**. The requested page will appear in a few seconds. Press **OK** to resume normal teletext reception.

### Accessing next or preceding page

Press **◀** (PAGE-) or **▶** (PAGE+).  
The next or preceding page appears.

### Superimposing the teletext display on the TV programme

- Press **OK** once in teletext mode or twice in TV mode.
- Press **OK** again to resume normal teletext reception.

### Preventing a teletext page from being updated

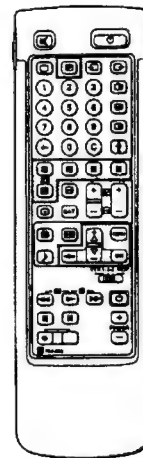
- Press **HOLD**. The HOLD symbol "H" is displayed on the information line.
- Press **OK** to resume normal teletext reception.

### Using Fastext

With Fastext you can access pages with one key stroke.

When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.

Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after a few seconds.



**Note**  
Some of the features may not be available depending on the teletext service.

Press **OK** to select "OFF" for the TIME PAGE setting to cancel the request.

## Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

- 1 Press **MENU**. The menu will be superimposed on the teletext display. (See Fig. 40.)
- 2 Using **Δ+** or **∇-**, select the teletext function you want and press **OK**. (See Fig. 41.)

### USER PAGES/PRESET USER PAGES

See page 22 for information about presetting and operating the user pages.

### INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

### TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display with the ability to scroll up and down. After having selected the function, an information line Top/Bottom/Full will be displayed. (See Fig. 42.)

Press **Δ+** for "Top" to enlarge the upper half. For "Bottom" keep pressing **∇-**, to enlarge the lower half. Press **OK** for "Full" to resume the normal size.

Press **OK** to resume normal teletext reception.

### TEXT CLEAR

After selecting the function, you can watch a TV programme while waiting for a teletext page to be captured. (The symbol changes colour.) (See Fig. 43.)

Press **OK** to resume normal teletext reception.

### SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

### REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line "REVEAL ON/OFF" will be displayed. (See Fig. 44.)

Using **Δ+** or **∇-**, select ON to reveal the information or OFF to conceal it again.

Press **OK** to resume normal teletext reception.

### TIME PAGE

Your teletext service will inform you, if a time coded page is available. You may have a page (e.g., an alarm page) displayed at a certain time.

- 1 An information window will be displayed at the bottom of the page. Using **Δ+** or **∇-** select "ON" and press **OK**.
- 2 To select the desired page, enter three digits for the page number (e.g., 452) using the number buttons.
- 3 To select the desired time, enter four digits for the desired time (e.g., 1800) using the number buttons. Press **MENU**. The selected time is displayed at the top in the left-hand corner. At the requested time, the page will be displayed. Press **OK** to resume normal teletext mode.



Fig. 40

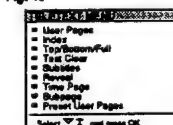


Fig. 41

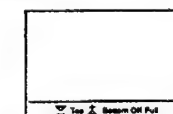


Fig. 42



Fig. 43



Fig. 44

GB



To cancel the request  
Select Subpage and  
press OK.

If two broadcasting  
stations use the same  
Teletext  
You can preset one  
bank to 2 different  
programme positions.

## SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROG+/- or the number buttons (e.g., enter 0002 for the second page of a sequence).

## User Page Bank System

You can store up to 30 pages in the "Teletext page bank system". In this way you have quick access to the pages you watch frequently.

### Storing pages

There are 5 "banks" (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

- 1 Press **Ⓜ** (if Teletext is not on already) and MENU to show the TELETEXT MENU display.
- 2 Select PRESET USER PAGES with  $\Delta$ + or  $\nabla$ - and press OK.
- 3 Select the desired bank with  $\Delta$ + or  $\nabla$ - and press OK. The cursor will go to the first position (P1) of the preferred pages.
- 4 Input the three digits of your first preferred page with the number buttons and press OK.  
The cursor will go to the second position.
- 5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number. After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.
- 6 Select Allocate Bank with  $\Delta$ + or  $\nabla$ - and press OK.
- 7 Select the programme position for which you have preset pages with  $\Delta$ + or  $\nabla$ - and press OK. (See Fig. 45.)
- 8 Select the desired bank with  $\Delta$ + or  $\nabla$ - (Banks A to E are available) and press OK.
- 9 Repeat steps 3 to 8 for the other 4 banks available.

### Displaying User Pages

- 1 Select MENU.
- 2 Select User Pages with  $\Delta$ + or  $\nabla$ - and press OK.  
A table of the stored preferred pages will be displayed. (See Fig. 46)
- 3 Select the desired page with  $\Delta$ + or  $\nabla$ - and press OK. The page will be displayed after some seconds.

or

You can use the coloured buttons on the Remote Commander to have quick access to the first four User pages. Page 1 corresponds to the red button, P2 to the green one, P3 to the yellow one and P4 to the blue button.

To select the desired page press the respective coloured button while you are in TV mode. Now the Page number of this teletext page will appear in white at the top in the left-hand corner of the TV screen. When the page number changes colour, the page is available. Press the coloured button again to display the page.

BANK	P1	P2	P3	P4	P5	P6
A	200	150	400	124	200	175
B	200	120	301	203	550	343
C	100	220	300	044		
D	130	281	150			
E	400	230	240	110	127	

PROG LABEL	BANK	PROG LABEL	BANK
00	VHS	04	MTV D
01	SAC1 A	05	SATY E
02	SAC2 C	06	ITV C

Fig. 45

BANK	P1	P2	P3	P4	P5	P6
A	200	150	400	124	200	175
B	200	120	301	203	550	343
C	100	220	300	044		
D	130	281	150			
E	400	230	240	110	127	

Fig. 46

# Connecting and Operating Optional Equipment

## Connecting Optional Equipment

You can connect optional audio-video equipment to this TV such as a VCR, video disc player, and stereo system.

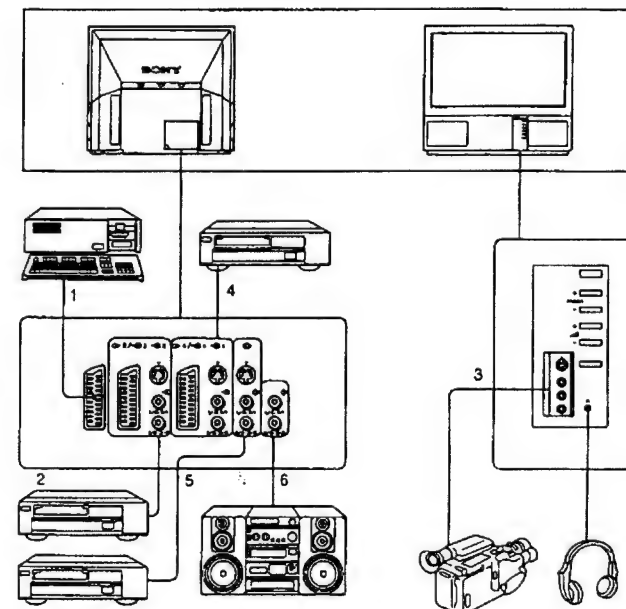
GE

To connect a VCR  
using the T terminal  
Connect the serial output  
of the VCR to the serial  
terminal T of the TV.  
We recommend that you  
tune in the video signal to  
programme number "0".  
For details see "Preset  
channels manually" on  
page 9.

If the picture or the  
sound is distorted  
Move the VCR away from  
the TV.

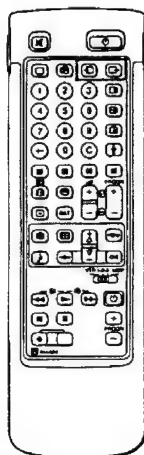
S/video Input  
(Y/C input)  
Video signals may be  
separated into Y  
(luminance or brightness)  
and C (chrominance)  
signals.  
Separating the Y and C  
signals prevents them  
from interfering with one  
another, and therefore  
improves picture quality  
(especially luminance).  
This TV is equipped with  
3 S Video input jacks  
through which these  
separated signals can be  
input directly.

When connecting a  
monaural VCR  
Connect only the white  
-O- jack to both the TV  
and VCR.



Acceptable input signal		Available output signal
1	Normal audio/video and RGB signal	Video/audio from TV tuner
2	Normal audio/video and S video signal	Video/audio from selected source
3	Normal audio/video and S video signal	No outputs
4	Normal audio/video and S video signal	Video/audio displayed on TV screen (monitor out)
5	No inputs	SVideo/audio signal displayed on TV screen (monitor out)
6	No inputs	Audio signal (variable)

**Selecting input with PROGA +/- or number buttons**  
You can preset video input sources to the programme positions so that you can select them with PROGA +/- or number buttons. For details, see "Preset channels manually" on page 9.



## Selecting Input and Output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

### Selecting Input

Press repeatedly to select the input source. The symbol of the selected input source will appear.

To go back to the normal TV picture

Press .

### Input modes

Symbol	Input signal
	Audio/Video input through the  1 connector
	Audio/RGB input through the  1 connector
	Audio/Video input through the  2/  2 connector
	Audio/S video input through the  2/  2 or  2 connector (4-pin connector)
	Audio/Video input through  3 and  3 connector on the front
	S video input through the  3 connector (4-pin connector) at the front
	Audio/Video input through the  4/  4 connector
	S video input through the  4/  4 or  4 connector (4-pin connector)

You can also select the input mode using the button on the TV.

### Selecting the output

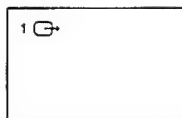
The 2/ 2 connector outputs the source input from the other connectors.

Press repeatedly to select the output.

The symbol of the selected output source appears.

### Output modes

Symbol	2/  2 connector outputs
1	Audio/video signal from the  1 connector
2	Audio/video signal from the  2/  2 connector
2	Audio/S video signal from the  2/  2 or  2 connector (4 pin)
3	Audio/video signal from the  3,  3 connectors
3	Audio/S video signal from the  3,  3 connectors
4	Audio/video signal from the  4/  4 connector
4	Audio/S video signal from the  4/  4 or  4 connector (4 pin)
TV	Audio/video signal from the T aerial terminal



## Using AV Preset

Using this function you can preset the desired input source (e.g. 1, RGB signal) to the respective AV input (AV 1 ). In this way a connected VTR will automatically switch to the RGB signal.

- 1 Select the symbol for "Preset" with  $\Delta$  or  $\nabla$  and press OK.
- 2 Select first "Installation", then "AV Preset" with  $\Delta$  or  $\nabla$  and press OK.  
The AV PRESET menu appears (See Fig. 47).
- 3 Select the desired AV input with  $\Delta$  or  $\nabla$  and press OK.
- 4 Select the desired source with  $\Delta$  or  $\nabla$  and press OK.  
For the respective AV inputs you have the following possibilities:  

AV1	RGB or AV	AV3	YC3 or AV
AV2	YC2 or AV	AV4	YC4 or AV
- 5 If you want to name the AV input select "Label" using  $\Delta$  or  $\nabla$  and press OK. Select a letter or a number with  $\Delta$  or  $\nabla$  and press OK. The next element will be highlighted. Select other characters in the same way. If you want to leave an element blank, select - and press OK.  
After having selected all the characters, press OK repeatedly until the cursor appears by the next AV input at the left margin.
- 6 Repeat steps 3 to 6 for the other AV inputs.

### Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen and PAP screen, and which output source is selected. You can also select them on the menu display.

- 1 Select the symbol for "Video Connection" with  $\Delta$  or  $\nabla$  and press OK. The VIDEO CONNECTION menu appears. (See Fig. 48)
- You can see which source is selected for the TV and PAP input, and for the output. If you want to select the input and output on this menu, go on to the next step.
- 2 Select TV Screen (input source for the TV screen), PAP (input source for the PAP screen), or output (output source) with  $\Delta$  or  $\nabla$  and press OK. One of the source items changes colour.
- 3 Select the desired source with  $\Delta$  or  $\nabla$ .  
For details about each source, see the table on page 24.
- 4 Press OK.  
The selected source is confirmed, and the cursor appears.
- 5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

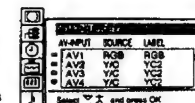


Fig. 47

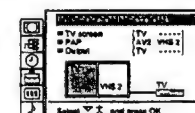
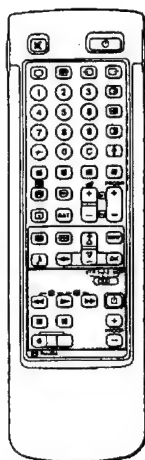


Fig. 48

GB



When recording when you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

## Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most of Sony remote-controlled video equipment such as: beta, 8 mm and VHS VCRs and video disc players.

### Tuning the Remote Commander to the equipment

- 1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:  
 VTR1: Beta VCR  
 VTR2: 8 mm VCR  
 VTR3: VHS VCR  
 MDP: Video disc player
- 2 Use the buttons indicated in the illustration to operate the additional equipment.  
 If your video equipment is furnished with a COMMAND MODE selector, set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.  
 If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

## Cleaning of the Air Filter

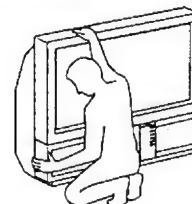
Periodic cleaning of the air filter is necessary. Clean the air filter once a month. When the filter becomes old and dust remains on the filter even after cleaning, replace it with a new one.

If you do not take the following precautions, you may get hurt or household belongings may be damaged.

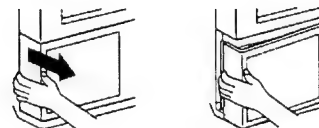
- Clean the air filter periodically. If you don't clean, it may cause internal heat build-up.
- Never use an air filter which is torn or has holes. Attach the filter firmly with six tabs. If dust enters the TV, the picture may become dark or it may cause fire.

- 1 Turn off the power and disconnect the power cord.

- 2 Remove the front panel.

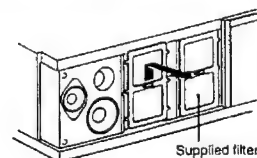


Remove the front panel without moving the TV.

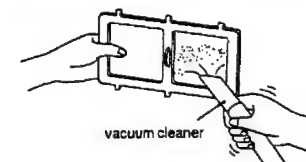


Grasping the side of the front panel with your fingers, pull it forward. Be careful not to catch your fingernails.

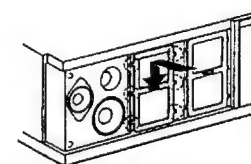
- 3 Pull the filter upward and remove it.



- 4 Clean the dust with a vacuum cleaner.



- 5 Attach the filter.  
 Attach the six tabs securely.



- 6 Attach the front panel.  
 Be careful not to damage the speaker.

**Notes**

- Attach the filter firmly. If it is not firmly attached, the power will not turn on.
- Remove the supplied filter in the same way as the attached filter.
- Consult your nearest Sony service center to obtain a new filter.

## Replacing the Lamp

The lamp life is about 6000 hours. When the lamp becomes dark or the picture colour is not normal, replace with a new lamp (supplied).

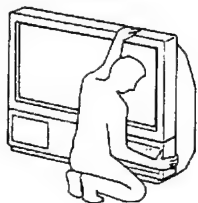
If you do not take the following precautions, you may get hurt or household belongings may be damaged.

- Use the supplied new lamp (XL-100) for replacement. If you use another lamp, it may cause damage to the TV.
- Do not remove the lamp except when replacing it. This may cause heat damage or fire.
- Before replacing the lamp, turn off the power and disconnect the power cord.
- Replace the lamp after it becomes cool. The front glass of the lamp remains 100 °C (212 °F) and more even 30 minutes after the power is turned off.
- Do not place the removed lamp in proximity to children or flammable material.
- Do not get the removed lamp wet, or insert objects inside the lamp. It may cause the lamp to explode.
- Do not place near metal or easily flammable objects, as this may cause fire. Also, do not put your hand inside the lamp compartment, as you may be burned.
- Attach the new lamp firmly. If it is not firmly attached, the picture may become dark or fire may result.

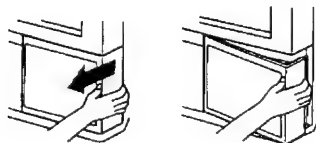
### 1 Turn off the power and disconnect the power cord.

Replace the lamp 30 minutes or more after the power is turned off.  
Prepare the new lamp.

### 2 Remove the front panel.

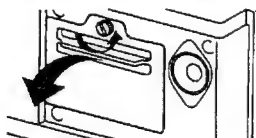


Remove the front panel without moving the TV.



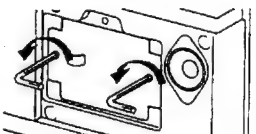
Grasping the side of the front panel with your fingers, pull it forward. Be careful not to catch your fingernails.

### 3 Loosen the screw with the object such as a coin and remove the lamp cover.

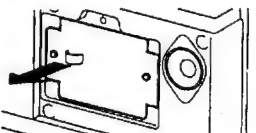


### 4 Loosen two screws and pull out the lamp.

The lamp is still too hot just after the power is turned off. Be careful that you don't touch the front glass or surrounding area of the lamp or the glass of the lamp compartment.



Loosen two screws with the supplied wrench.



Pull out the lamp by the handle.

### 5 Attach the new lamp.

Fasten two screws tightly.

### 6 Attach the lamp cover.

Fasten the screws tightly.

### 7 Attach the front panel.

Be careful not to damage the speaker.

#### Notes

- Do not touch or stain the front glass of the new lamp or the glass of the lamp compartment. If the glass becomes dirty, the picture quality may deteriorate or the lamp life may shorten.
- Attach the lamp cover firmly. If it is not firmly attached, the power will not turn on.
- When the lamp burns out, a noise is audible. This does not represent a damage.
- Consult your nearest Sony service center to obtain a new lamp (XL-100).

## Troubleshooting

Here are some simple solutions to some problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	<ul style="list-style-type: none"> <li>• Plug in the TV in.</li> <li>• Press <math>\odot</math> on the TV (If <math>\odot</math> indicator is on, press <math>\square</math> or a programme number on the Remote Commander).</li> <li>• Check the aerial connection.</li> <li>• Check if the selected video source is on.</li> </ul>
Poor or no picture (screen is dark), but sound is OK	<ul style="list-style-type: none"> <li>• Press <math>\blacksquare</math> to enter the PICTURE CONTROL menu and adjust the brightness, contrast and colour.</li> </ul>
Poor picture quality when watching an RGB video source	<ul style="list-style-type: none"> <li>• Press <math>\odot</math> repeatedly to select <math>\rightarrow \odot</math>.</li> </ul>
Poor picture quality of PAP screen	<ul style="list-style-type: none"> <li>• Press <math>\blacksquare</math>.</li> </ul>
Good picture but no sound	<ul style="list-style-type: none"> <li>• Press <math>\Delta</math> +.</li> <li>• Check loudspeakers connection.</li> <li>• If <math>\llcorner</math> is displayed on the screen, press <math>\llcorner</math>.</li> </ul>
No colour for colour programmes	<ul style="list-style-type: none"> <li>• Press <math>\blacksquare</math> to enter the PICTURE CONTROL menu, select RESET, then press OK.</li> </ul>
Remote Commander does not function	<ul style="list-style-type: none"> <li>• The batteries are weak.</li> </ul>

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

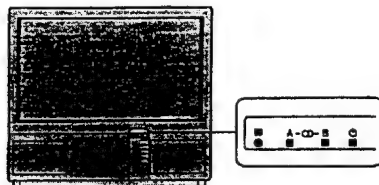
## Specifications

This product complies with the EU Directive 89/336/EEC.

Television system	B/G/H, D/K, I, L	Sound output	2 x 5 W (music power)
Colour system	PAL/SECAM	Centre	1 x 20 W
Channel coverage	NTSC 3.58/4.43 (VIDEO IN) See "Receivable channels and channel displays" at the bottom.	Power consumption	170 W
Projected picture size	37 inches (KL-37W1) Approx. 94 cm diagonally 50 inches (KL-50W1) Approx. 127 cm diagonally	Dimensions (W x H x D)	920 x 825 x 390 mm (KL-37W1) 1,230 x 1,055 x 550 mm (KL-50W1)
Terminals		Mass	29 kg (KL-37W1) 43 kg (KL-50W1)
Rear	<ul style="list-style-type: none"> <li><math>\rightarrow</math> 1 21-pin Euro connector (CENELEC standard) inputs for audio and video signals</li> <li>- inputs for RGB</li> <li>- outputs of TV video and audio signals</li> <li><math>\rightarrow</math> 2/ <math>\rightarrow</math> 2 21-pin Euro connector</li> <li>- inputs for audio and video signals</li> <li>- inputs for S video</li> <li>- outputs for audio and video signals (selectable)</li> <li><math>\rightarrow</math> 4/ <math>\rightarrow</math> 4 21-pin Euro connector</li> <li>- inputs for audio and video signals</li> <li>- inputs for S video</li> <li>- outputs for audio and video signals (monitor out)</li> <li><math>\rightarrow</math> 2, <math>\rightarrow</math> 4 S video inputs</li> <li>- 4 pin DIN</li> <li><math>\rightarrow</math> Audio inputs (L, R) - phono jacks</li> <li><math>\rightarrow</math> S video output 4-pin DIN</li> <li><math>\rightarrow</math> Audio outputs - phono jacks</li> <li><math>\rightarrow</math> Audio outputs (variable)-phono jacks</li> <li><math>\rightarrow</math> 3 video input - phono jack</li> <li><math>\rightarrow</math> Audio inputs - phono jacks</li> <li><math>\rightarrow</math> 3 S video input - 4-pin DIN</li> <li><math>\rightarrow</math> Headphone jack: stereo minijack</li> </ul>	Supplied accessories	See page 8.
Front		Other features	Digital comb filter (High resolution) PAP (Picture-and-picture) FASTEXT 100 Hz Digital Plus Graphic Equalizer
Design and specifications are subject to change without notice.			
Receivable Channels and Channel Displays			
	Receivable channels	Indication on the screen	
B/G/H	E2..12 21..69	C02 C03 C04..C12 C21..C69	
CABLE TV (1)	S1..41	S01 S02..S41	
CABLE TV (2)	S01..S05 M1..M10 U1..U10	S42..S46 S01..S10 S11..S20	
ITALIA	A B C D E F G H H1 H2 21..69	C11..C69	
D/K	R01..R12 R21..R69	C02..C12 C21..C69	
CABLE TV (1)		S01 S02..S41	
CABLE TV (2)		S42 S43..S46	
CABLE TV	B..Q, S21..41	S02, S03..S17, S21..S41	
L	F2..F10 F21..F69	C01..C12 C21..C69	
I	B21..B68	C21..C68	

## Warning Indicators

When a problem occurs, the indicator flashes as follows.  
Attempt the solution recommended for the given problem.

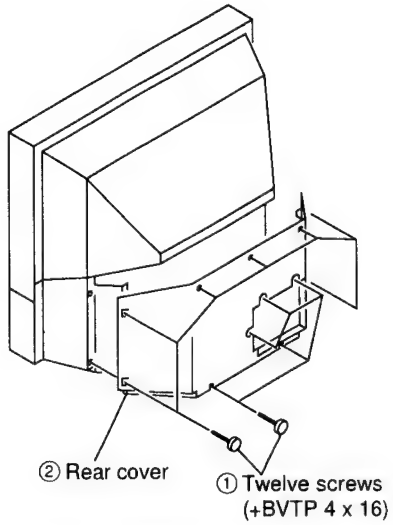


Cause	Indicator flashing patterns
The lamp burns out or the quality of the lamp is deficient.	The B indicator flashes twice then A flashes once. Flashing continues in this manner.
The cover of the filter or the lamp is removed.	The B indicator flashes three times then A flashes once. Flashing continues in this manner.
The fan for cooling stops.	The B indicator flashes four times then A flashes once. Flashing continues in this manner.
Internal heat builds up.	The B indicator flashes five times then A flashes once. Flashing continues in this manner.

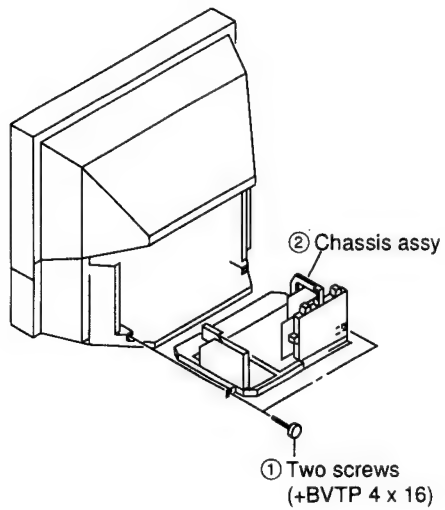
If the lamp flashes in a way not described above, consult your nearest Sony service center.

## SECTION 2 DISASSEMBLY

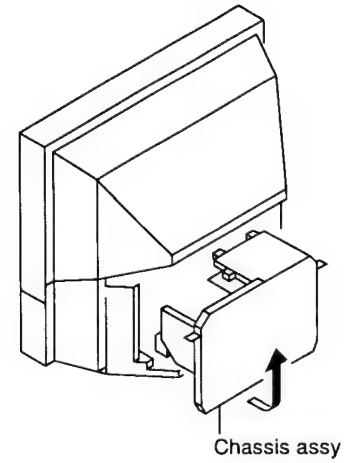
### 2-1. REAR COVER REMOVAL



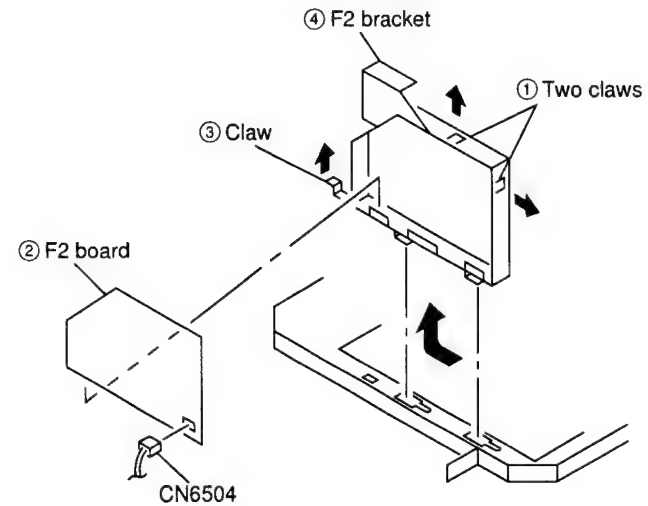
### 2-2. CHASSIS ASSY REMOVAL



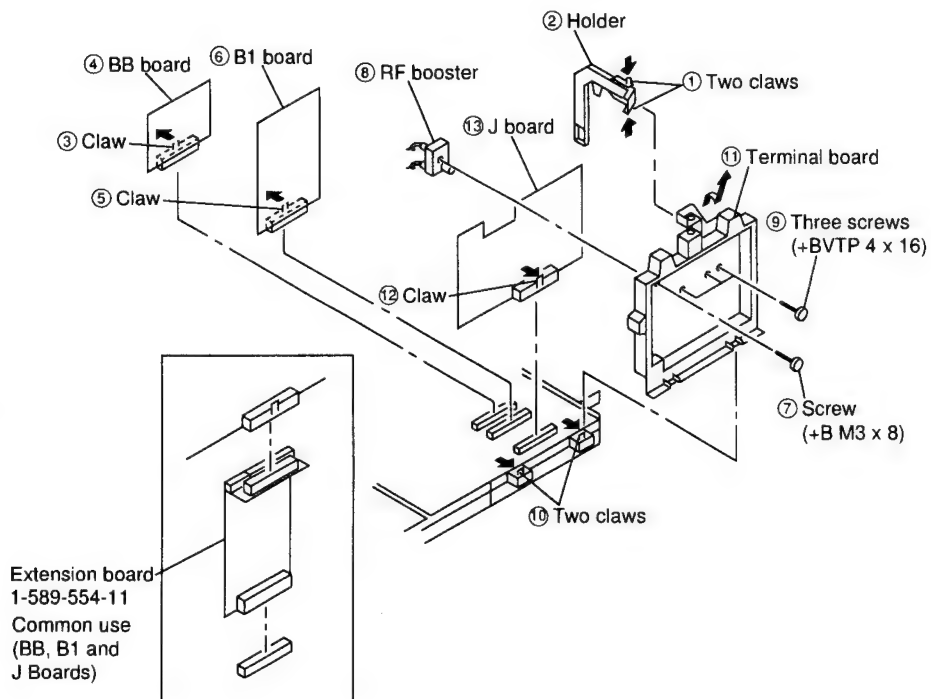
### 2-3. SERVICE POSITION



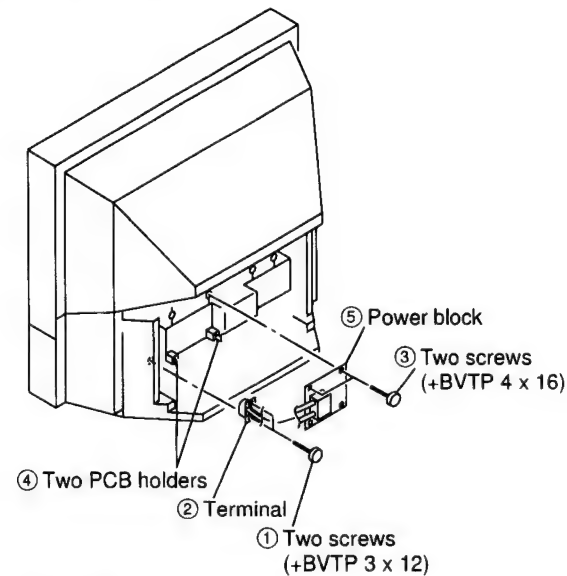
### 2-4. F2 BOARD AND F2 BRACKET REMOVAL



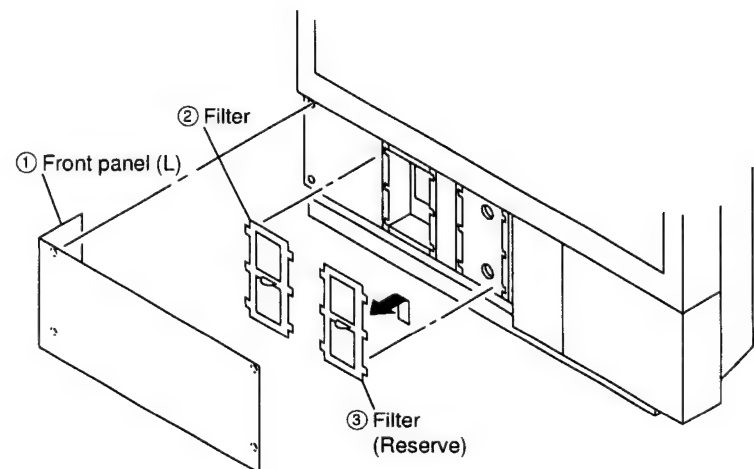
## 2-5. BB, B1 AND J BOARDS REMOVAL (EXTENSION BOARD)



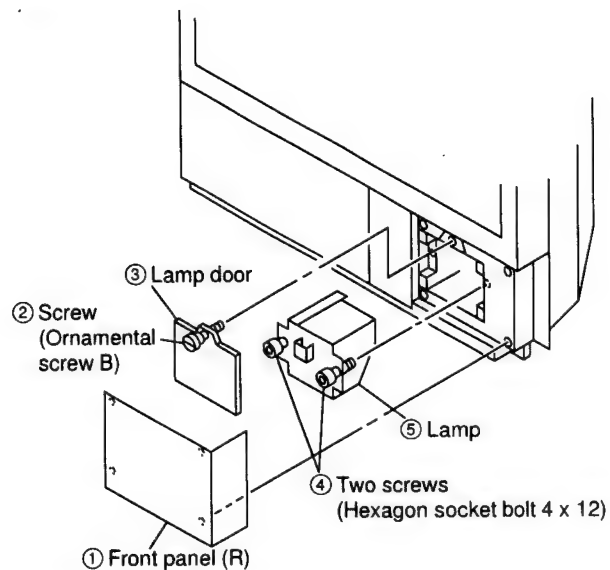
## 2-6. POWER BLOCK REMOVAL



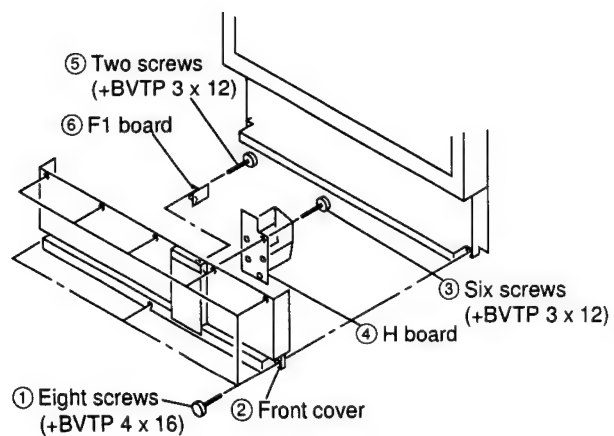
## 2-7. FILTER REMOVAL



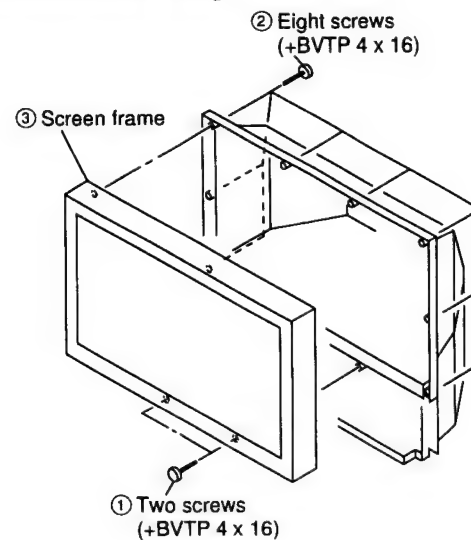
## 2-8. LAMP REMOVAL



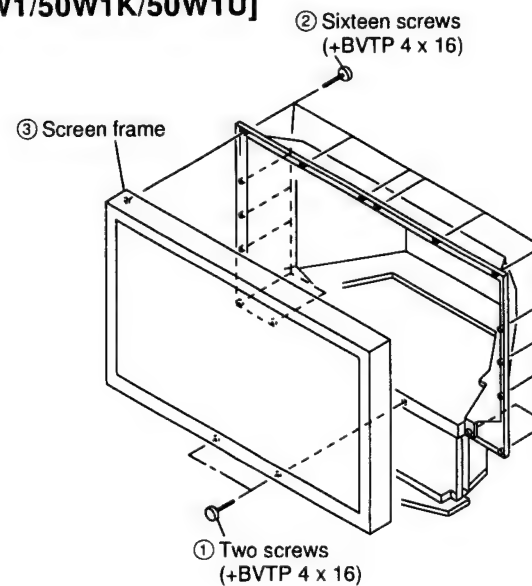
## 2-9. H AND F1 BOARDS REMOVAL



## 2-10-1. SCREEN FRAME REMOVAL [KL-37W1/37W1K/37W1U]

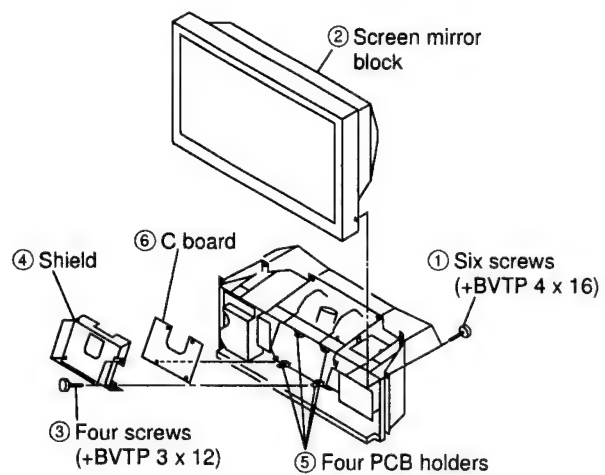


## 2-10-2. SCREEN FRAME REMOVAL [KL-50W1/50W1K/50W1U]

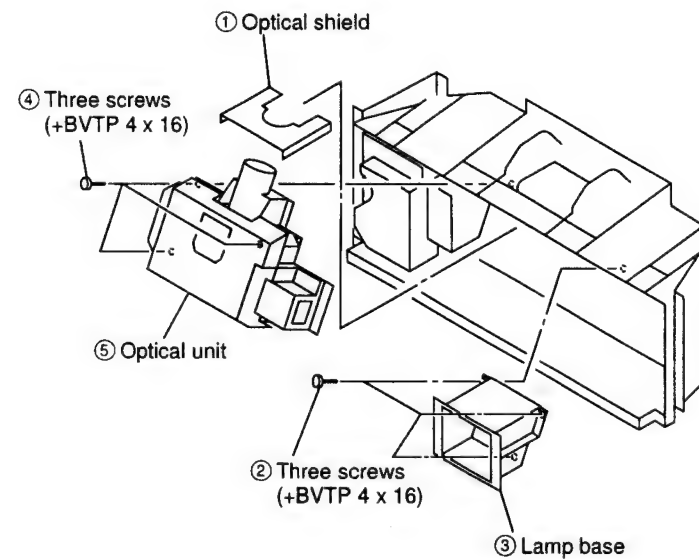




## 2-11. C BOARD REMOVAL



## 2-12. OPTICAL UNIT REMOVAL



## SECTION 3

### CIRCUIT ADJUSTMENTS

#### 3-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-838.

##### HOT TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing the + (plus) and – (minus) buttons on the customer front panel.

3. Press 01 on the commander to get the menu on screen.

Venus	V2.07	AE-3	12/03/96
○ Init			
○ Video Contr	CXA1839		
○ Scan Con.	CXD2428		
○ Video Proc M	CXD2030		
○ Timing Gen.	CXD2412		
○ RGB Interface	CXA2011		
○ PAP	CXD2031		
○ SRC	CXD2032		
○ TDA6812	TDA6812		
○ PALPLUS			

4. Press the ▲ and ▼ buttons on the remote commander to select the adjustment item.
5. Press the **OK** button to proceed to the next menu.
6. If the adjustment item is Video cont press the ▼ button to move to Video cont then press **OK** button.
7. The Menu as indicated in Fig will appear on the screen.

Fig. 4-1

2. "TT" will appear on the upper right corner of the screen.

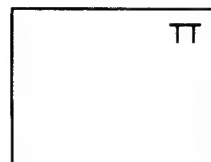


Fig. 4-2

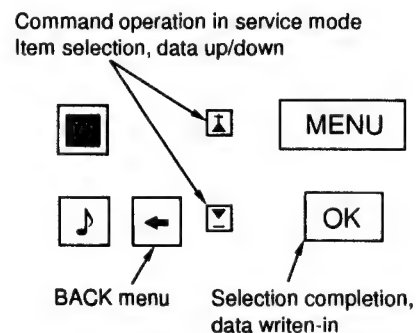


Fig. 4-3

#### Video Cont. CXA1839

Item No.	Adjustment Item	Data Amount
1	Sub BRT	[6]
2	Sub COL1	[15]
3	Sub CON1	[15]
4	PIC	[53]
5	HUE	[31]
6	COL	[31]
7	BRT	[31]
8	SHP	[31]
9	Sub HUE	[6]
10	D COL	[off]

11	SHP Lim	[off]
12	Age WHT	[off]
13	R-Y R	[8]
14	R-Y B	[13]
15	G-Y R	[11]

8. Press the ▼ button to move > to the adjustment item and press the **[OK]** button.
9. Press the ▲ and ▼ buttons to change the data in order to comply with each standard.
10. Press the **[OK]** button to write data into memory.
11. Turn off the power to quit the service mode when adjustments have been completed.

#### Scan Converter CXD2428

Item No.	Adjustment Item	Data Amount
1	H-shift	[126]
2	V-shift	[14]
3	H-phase	[58]
4	V-phase	[31]
5	H-SZ-RD (40h)	[140]
6	H-SZ-RD (50h)	[3]
7	H-SZ-WR (41h)	[140]
8	H-SZ-WR (51h)	[3]
9	LN-DAT0	[0]
10	MD-DAT0	[3]
11	LN-DAT1	[0]
12	MD-DAT1	[0]
13	LN-DAT2	[0]
14	MD-DAT2	[0]
15	LN-DAT3	[0]

#### Video Proc M CXD2030

Item No.	Adjustment Item	Data Amount
1	DNR	[on]
2	DNR value	[5]
3	TA Sync C1p pls width	[16]
4	TB BGP position	[50]
5	TD CLP position	[25]
6	Foto CD SW	[off]
7	BLK porch pos	[16]
8	NTSC TD BGP pos	[25]
9	PAL TD BGP pos	[25]
10	Not Secam TB BGP pos	[50]
11	Secam TB BGP pos	[50]
12	358 NR Level	[3]
13	443 NR Level	[5]
14	Color detect Mode	[0]
15	Extern Y/C	[off]

#### RGB Interface CXA2011Q

Item No.	Adjustment Item	Data Amount
1	Drive Level	[48]
2	Sig Sel	[0]
3	Sub Bright	[23]
4	Sync Sel	[0]
5	Sync SW	[3]
6	ABL SW	[off]
7	AKB-T	[off]
8	HD Sync	[on]
9	R Drive	[31]
10	G Drive	[31]
11	B Drive	[31]

12	R Cutoff	[124]
13	G Cutoff	[124]
14	B Cutoff	[123]
15	Gamma Level	[0]

#### TIMING GENERATOR CXD2412QA

Item No.	Adjustment Item	Data Amount
1	SLSH1	[on]
2	SLSH2	[off]
3	SLSH3	[on]
4	BH Bias	[252]
5	RH Bias	[252]
6	BL Bias	[112]
7	RL Bias	[122]

#### PAP CXD2031

Item No.	Adjustment Item	Data Amount
1	Main phase WR start	[52]
2	Sub phase WR start	[20]
3	Main RD start	[43]
4	Brightness sub	[8]
5	Twin pic	[on]
6	WR inhibit1	[off]
7	WR inhibit0	[off]
8	RD inhibit0	[off]

#### SRC CXD2032

Item No.	Adjustment Item	Data Amount
1	YCD	[0]
2	YDF	[0]
3	COF	[0]
4	Reference clamp	[0]
5	Offset	[off]
6	IIR latch	[off]
7	BGP Sync SW	[0]
8	Clamp	[off]
9	50/60	[off]
10	Reference clamp	[32]
11	Offset Level	[0]
12	System Delay	[9]
13	Offset Level	[0]
14	FVSW	[on]
15	Mask SW	[on]

#### TDA 6812

Item No.	Adjustment Item	Data Amount
1	Stereo-sep	[15]
2	Pre-Volume	[2]
3	Treble-offset L/R	[0]
4	Bass-offset L/R	[0]
5	Treble-offset C/S	[255]
6	Bass-offset C/S	

### 3-2. TEST MODE

Is available by pressing the Test button twice, OSD "TT" appears. The functions described below are available by pressing the two numbers. To release Test Mode 2, press 0, 10, 20...twice or switch the TV into Standby Mode. Pressing the two Local Control buttons (+ and -) during Power ON will also switch into "TT" mode.

In TT mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the menu to reappear. The Function is kept even when the menu is not displayed!!

00	Switch back to normal mode - TT mode off
01	Switch service menu on
02	no function
03	Set Volume to 30%
04	Service Menu in "Service Mode"
05	Service Menu in "Production Mode"
06	Set Volume to 80%
07	Aging mode
08	Shipping condition (Production request) To ensure that all TV sets leave the Production with the same presettings. Programme 1 is selected, AV IN is set to AV1, AV Out is set to TV Out, Volume and HP Volume is set to 35%, Resolution is set to high, Format is set to 4:3, Pip is set to Top Left position, Pip is switched off, TT mode is switched off, all analogue values are set to the reset setting, space Sound - Equalizer - Loudness = off, DNR off, Dig. Mode = 1, Wide Zoom Mode for W28 models, Menu Language Reset, Prog. Pointer table reset Non Interlace is allowed in Text mode.
09	Language reset. With this function the Menu Language is set to "unselected" (NVM Bank OAAH Address ODCH). The value for the Language Group is not overwritten (Selection West/East/Common). The Language Menu appears now automatically when the TV set is switched ON as long as no new language is selected.
10	The TT number will be deleted. All numbers with 0 (10, 20 30, 40, 50, 60, 70, 80, 90) will reset the TT number. A new number can be selected. TT display is kept

11	Direct access to Balance. With Cursor Up/Down the Balance can be controlled (w/o OSD, Menu display)
12	Direct access to Hue. With Cursor Up/Down the Hue can be controlled (w/o OSD, Menu display)
13	Display of Software Version and TV set configuration
14	Production Info Display
15	Read factory setting from ROM (Program code) and store this data at Last Power Memory data location (The previous last power memory data is overwritten) AE3 has 3 packages of Analogue data: 1. Last Power memory data. This data is sent continuously to the corresponding IC's (TDA1839, SC, TDA6812) with this data the TV picture/sound appears. 2. Reset data. By pressing "Reset" in the menu this data is transferred from Reset Data location to the Last Power data location in the NVM. That means the previous Last Power Memory Data is overwritten by the Reset data last Power memory and Reset data are now the same. 3. Factory fixed data. In the ROM code of the micro processor are also analogue datas which are fixed (ROM can't be changed)
16	Save actual Last Power Memory data at Reset Data location (The previous Reset data is overwritten)
15/16	With these two functions, it is possible to preset user defined Reset values (just TT16) or to preset factory defined Reset values (first TT15 then TT16)

17	This functions presets the Labels for the AV sources: The Labels are AV1, RGB, AV2, YC2, AV3, YC3, AV4, YC4.
18	Text possible On/Off selection of Text (toggle function)
19	Direct access to Stereo Separation With cursor Up/Down the Stereo separation can be adjusted (w/o OSD, Menu display)
20	see TT10
21	no function
22	Operating Timer and Error Monitor display
23	Direct access to Sub Brightness Adjustment With cursor Up/Down the Sub BRT can be adjusted (w/o OSD, Menu display)
24	Direct access to Sub Color. With Cursor Up/Down the Sub Color can be adjusted.
25	Status menu display (SubController, CXA1840 Status, Main Controller.)
26	Text Character set selection (Char set 06 -> West Europe)
27	Text Character set selection (Char set 38 -> East Europe)
28	Text Character set selection (Char set 40 -> West Europe) US English
29	Text Character set selection (Char set 55 -> West Europe) Turkish
30	see TT10
31	Increase V-Aperture
32	Decrease V-Aperture
33	no function
34	no function

35	no function
36	Mtx Register 112 = intern display clock
37	Mtx Register 112 = extern display clock
38	Automatic selection of Screen Modes: 4:3 -> Zoom -> Zoom up -> Zoom down -> smart -> wide.
39	Reset Programme Table (NVM Bank 0ACH) The sorting of programmes in "Programme Sorting Menu" is reset.
40	see TT10
41	Picture min
42	no function
43	no function
44	no function
45	Set NVM to Protect mode (Bank 0AEH Adr. 0FFH write with 0)
46	IR Channel Presetting Mode. The channel presetting can be done by a Special IR transmitter (Detailed INFO about IR transmitter from SEC) Sequence: TT46 -> --PR Number select display appears Select Prog. No from where the channel shall be stored. --> Now TV is waiting for IR sequence <-- --> If no IR transmission starts TT46 is released after 20 secs <-- !Note: When TT46 is active, any transmission will be interpreted as PROG data !
47	Direct access to Headphone Source Selection with Cursor Up/Down the Source of Headphone can be selected (w/o OSD, Menu display)
48	no function
49	The EEPROM Testbyte is erased. After Power OFF -> ON the complete EEPROM data (except channel tables) are overwritten. EEPROM Protection byte is set to 0 protection mode
50	see TT10
51	Strobo mode is activated.

52	no function
53	no function
54	no function
55	MTX Slicer Control "Low Pass" (only Sys L))
56	MTX Slicer Control "No Compensation"
57	Megatext Service Menu ON
58	MTX Small Framing Code Window
59	MTX Wide Framing Code Window
60	see TT10
61	no function
62	ACI disable.
63	ACI enable.
64	Reset all IIC Slave commands
65	Reset stored error codes in NVM.
66	Reset for Sub Controller.
67	Direct access to Headphone Volume. With cursor Up/Down the Headphone volume can be controlled (w/o OSD, menu display)
68	ignore errors.
69	reset ignore errors (show errors)
70	see TT10
71	Picture Rotation Function On/Off toggle.
72	no function
73	Megatext RGB textlevel one step decreased
74	Megatext RGB textlevel one step decreased
75	reserved for TT command Network ID, not implemented yet
76	CXD2030 Default data setting.
77	CXD 2031 Default data setting.
78	CXD 2032 Default data setting.
79	CXD 2428 Default data setting.
80	see TT10
81	Default data setting CXA2011

82	no function
83	no function
84	CXA 1839 Default data setting
85	Default data setting CXD 2412
86	no function
87	Default data setting CXD 2030
88	Text character set Russian/East
89	Text character set Russian/West
90	see TT10

### 3-3. ERROR MONITOR AND DETECTION

In the menu 'Error Monitor', information about the error status of the set is displayed.

- Actual operating time
- Last five errors which are stored in the NVM
- Actual error

Error Monitor
<p><b>Operating Time</b> 000355 h 35min</p> <p><b>Saved Errors</b> 1. 40h=D1 Board 2. 60h=Q Board 3. 70h=T Board 4. 00h=no error occurred 5. 00h=no error occurred</p> <p><b>Actual Error</b> -&gt; 00h=no error occurred</p>
<b>to reset the NVM press 'TT' 65</b>

Additionally the Error Reader can be connected to the service connector to read out the actual errors.

The device check itself is active while the TV set is running out of stand-by mode. The devices are checked by sending an PC start sequence and if there is no acknowledgement back from the devices it is regarded as an error. Each device is checked three times and if at every attempt there is no reply from the relevant device an error is given. To read the error codes press 'TT' followed by 22 on the commander to view the Error Monitor menu.

To reset the error codes in the NVM press 'TT' followed by 65 on the remote commander.

TABLE OF ERROR CODES

Error Code	Device	Description	Board
000h	no device	no error has occurred	-
001h	IIC 1 and IIC 2	IIC 1 and IIC 2 blockaded	-
002h	IIC 1	IIC1 is blockaded	-
003h	IIC 2	IIC2 is blockaded	-
010h	A Board	A Board is defective	-
020h	A1 Board	A1 Board is defective	-
030h	BX-Board (B, B1, B2)	B, B1, or B2 Board is defective	-
040h	D1 Board	D1 Board defect	-
050h	J Board	J Board defect	-
060h	Q Board	Q Board defect	-
070h	T Board	T Board defect	-
011h	CXP85332	No response from the Subcontroller	A
012h	ST24C16	No response from the NVM	A
013h	SDA5273	No response from the Megatext IC	A
014h	TDA6812	No response from the Sound Processor	A
015h	SAA7283	No response from the Nicam Decoder	A
016h	UV916H	No response from the Main Tuner	A
017h	CXA1839Q	No response from the Video Controller	A
018h	CXA1840	No response from the CRT Driver	A
019h	RGB8443	No response from RGB/YUV	A
021h	TDA6622	Audio processor of the Center and Surround channel in the case of Dolby Prologic does not respond.	A1
022h	TDA7317	No reponse from the Equalizer.	A1
031h	CXD2030R	No response from the Digital Video Processor.	B/B1
032h	CXD2031R	No response from the Twin Picture IC.	B1
033h	CXD2032R	No response from the Digital Sampling Rate Converter.	B/B1
034h	CXD2033R	No response from the Picture in Picture IC.	B
035h	CXD2035R	No response from the Aspect Converter.	B/B1

Error Code	Device	Description	Board
036h	TDA9160	No response from the Chroma Decoder.	B/B1
037h	TDA9145	No response from the Chroma Decoder (on French models only.)	B2
041h	CXA1526	No response from the Convergence IC.	D1
051h	CXA1855	No response from the AV-Switch	J
061h	83C65202	No response from the Local Controller.	Q
071h	UV1316/TSA5526	No response from the Subtuner.	T
072h	CXA1875	No response from the Port Expander.	T

## LENS FOCUS ADJUSTMENT

1. Loose screw of LENS focus.
2. Adjust LENS focus so that best focus.

## 3-4. REGISTRATION ADJUSTMENT

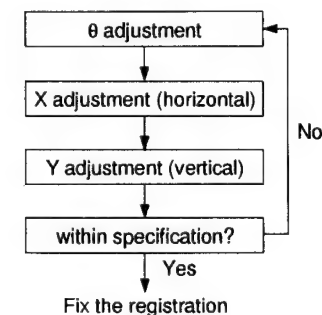
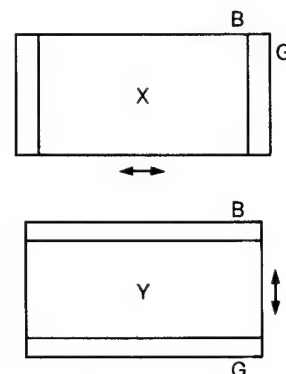
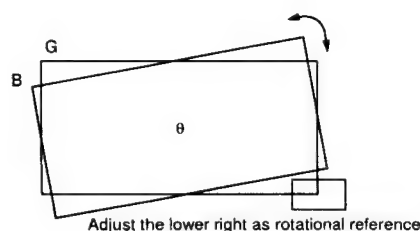
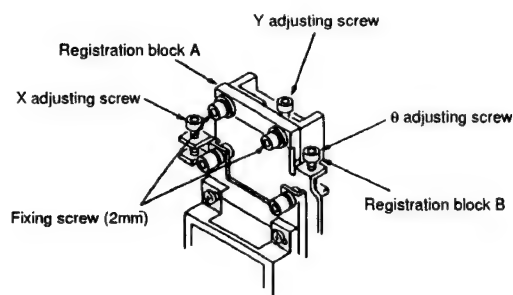
### Preparation

- Aspect ratio ..... 16:9
- Image quality adjusting menu ..... Standard

Note: In adjusting the registration, the registration fixing block is secured with an adhesive, and therefore the PANEL BLOCK ASSY is required.

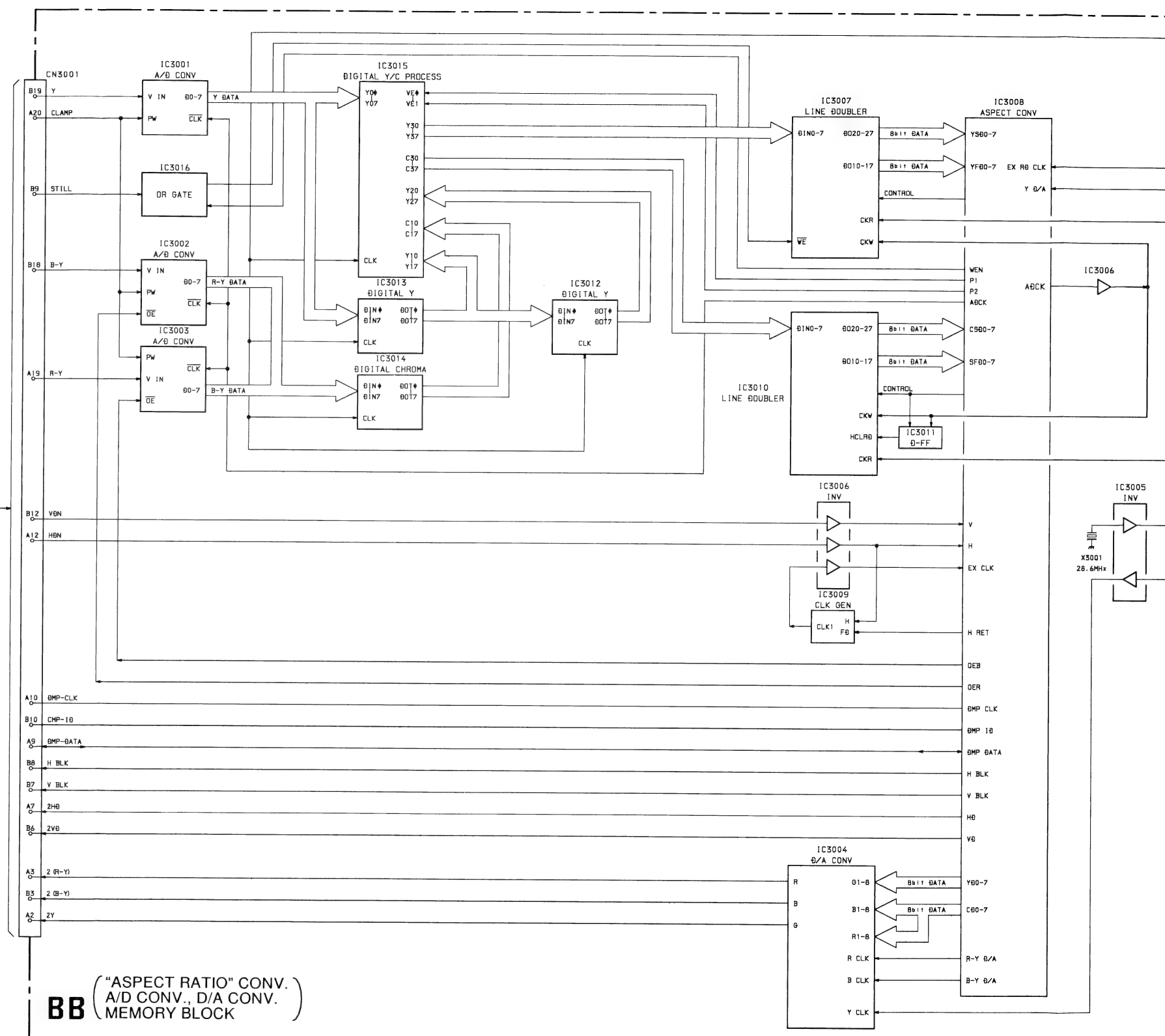
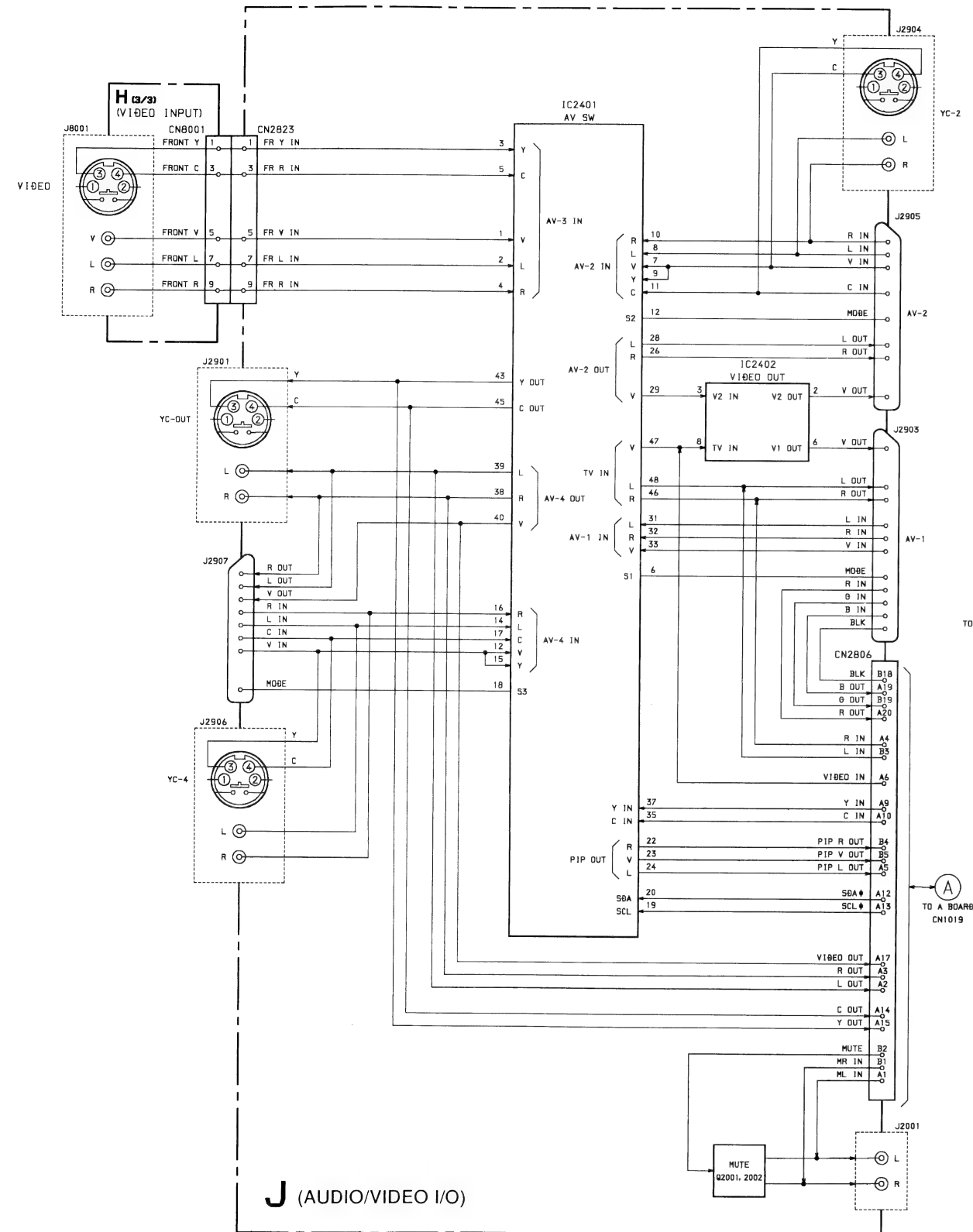
- Tools and Kit  
Hex. wrench keys (2mm, 1.5mm)  
PANEL BLOCK ASSY (Refer to SECTION 5. EXPLODED VIEWS)

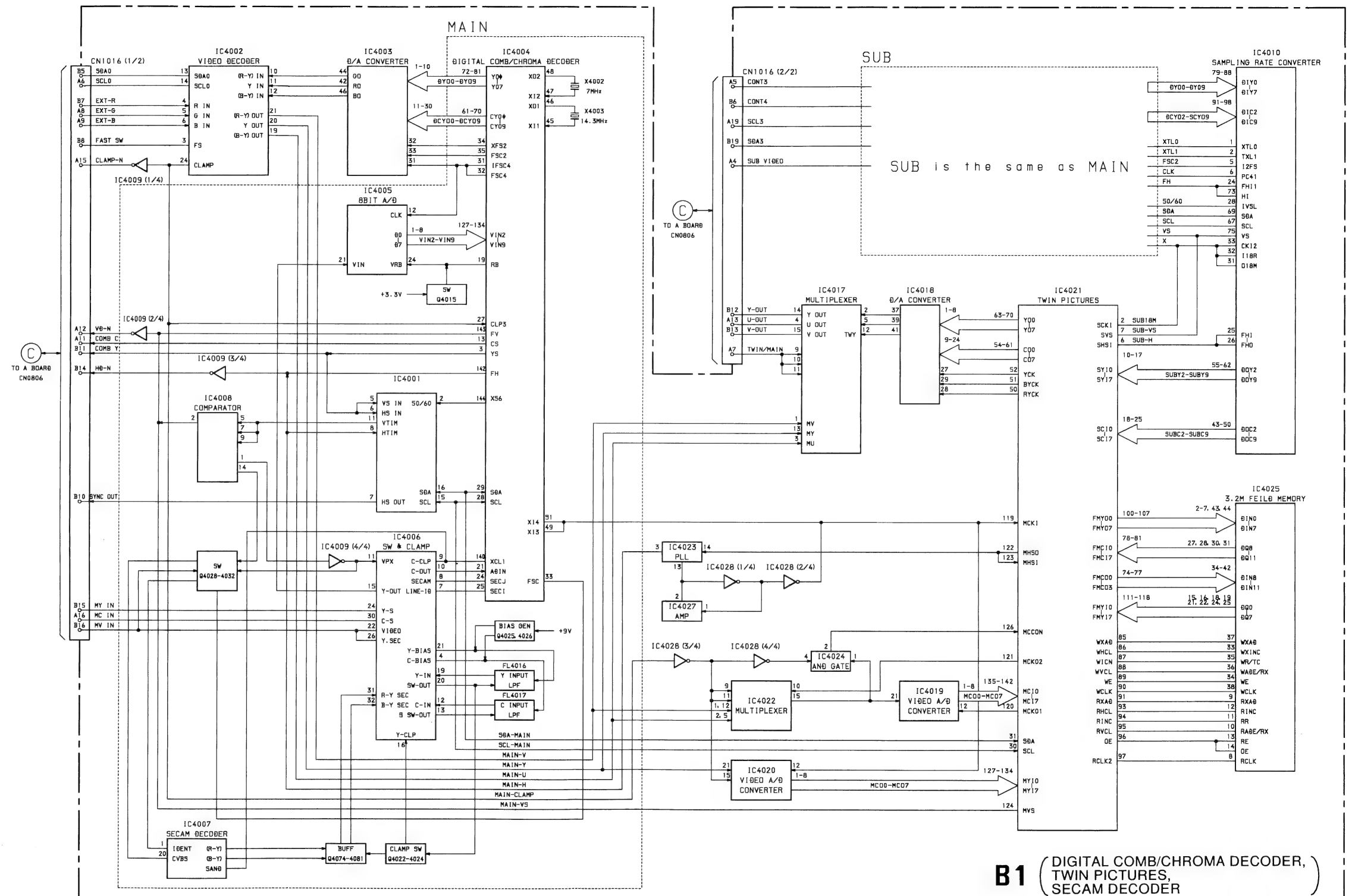
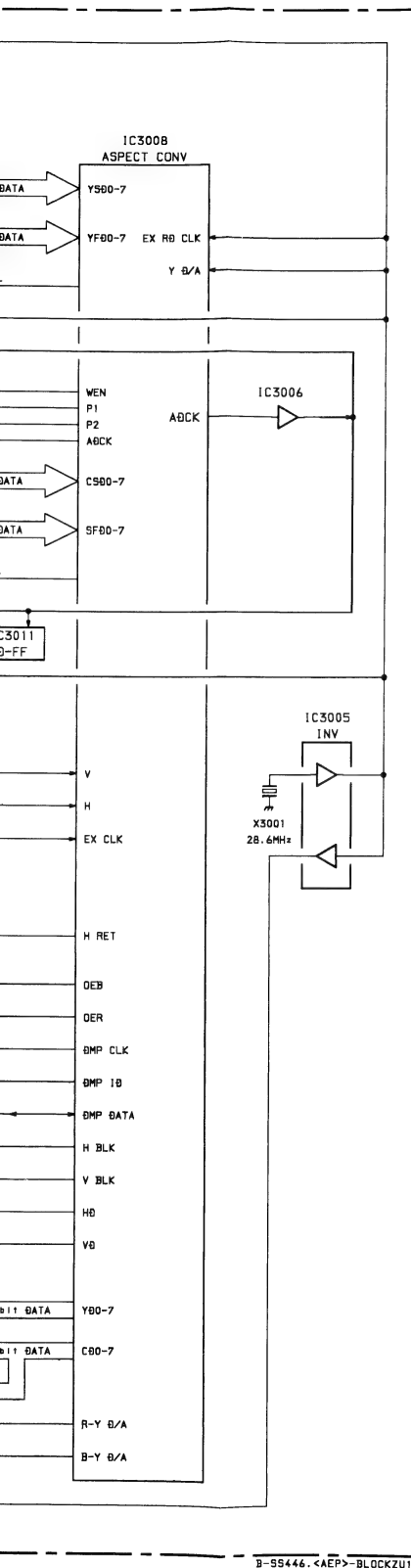
1. Entering G monochrome crosshatch signal or B monochrome crosshatch signal, adjust the registration between B and G. Overlay B image on the G image as shown, while turning the registration adjusting screws in the order of  $\theta \rightarrow X \rightarrow Y$ .
2. Enter full black signal to the B panel, then the R monochrome crosshatch signal to adjust the registration of R and G.
3. Tighten tentatively the registration fixing screws on the R and B panels, and secure the registration blocks A and B with an adhesive.
4. Tighten the registration fixing screws.



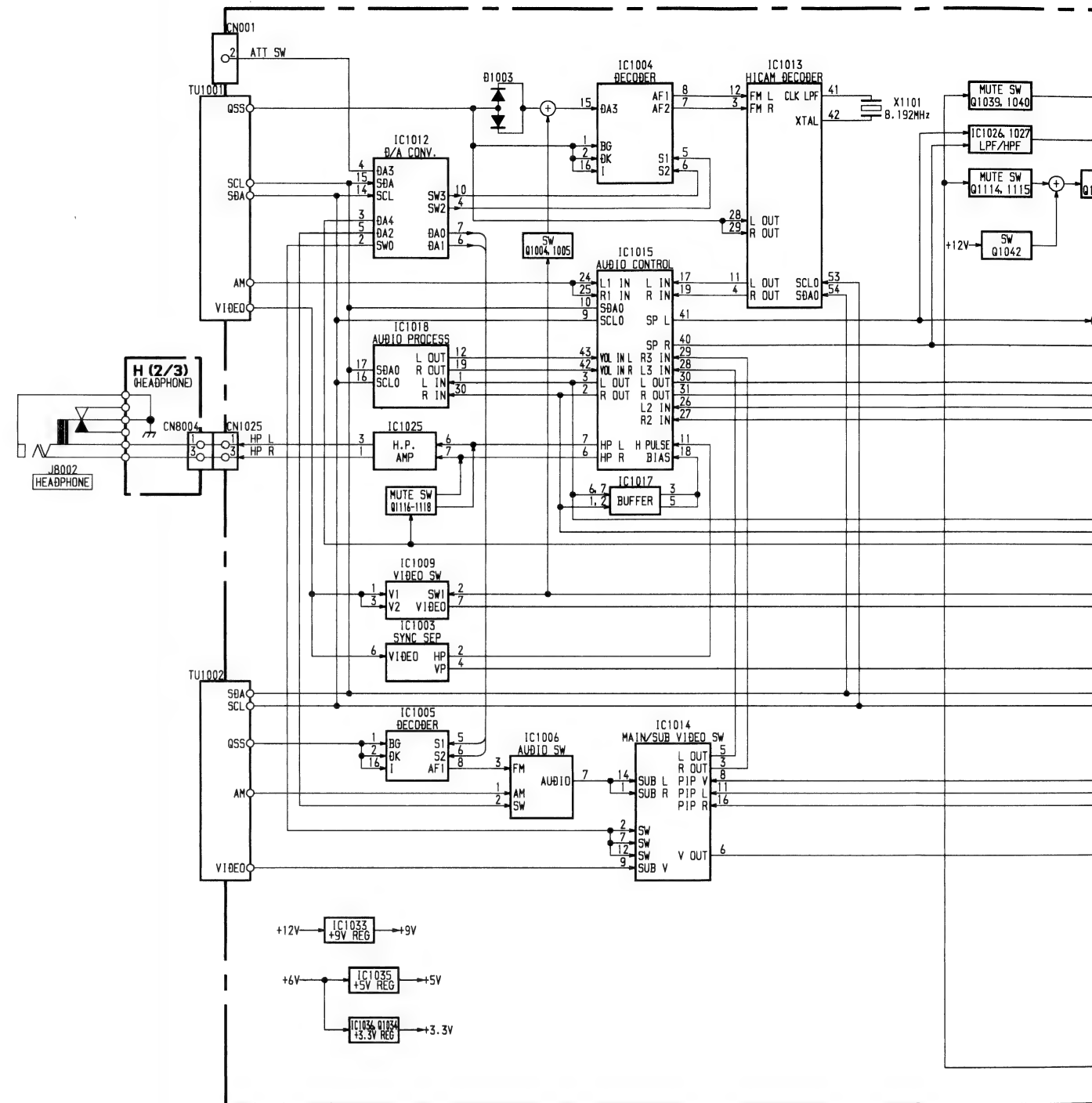
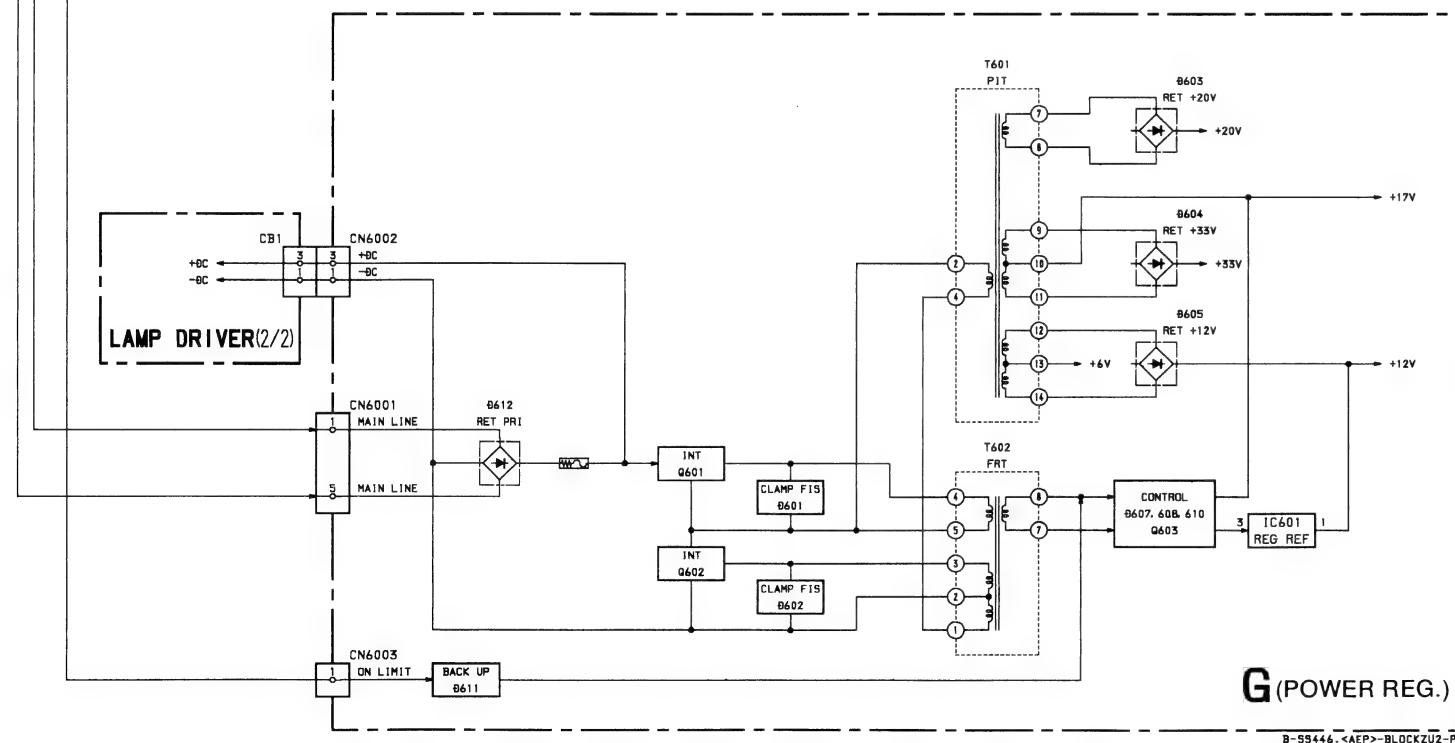
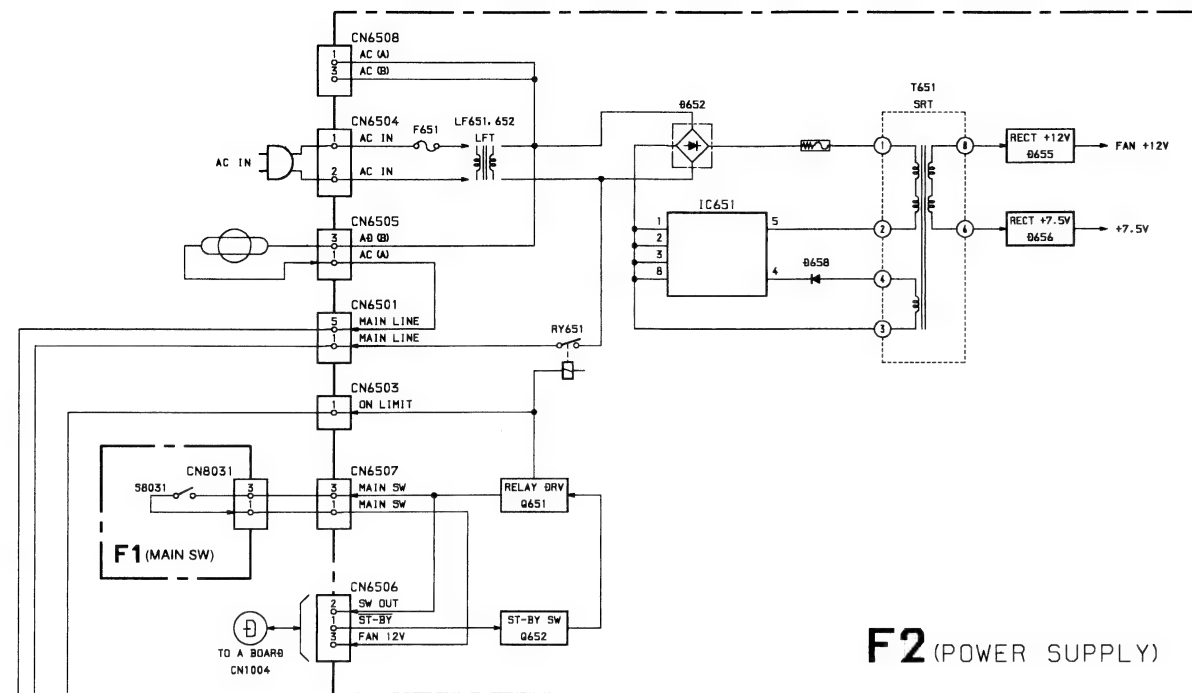


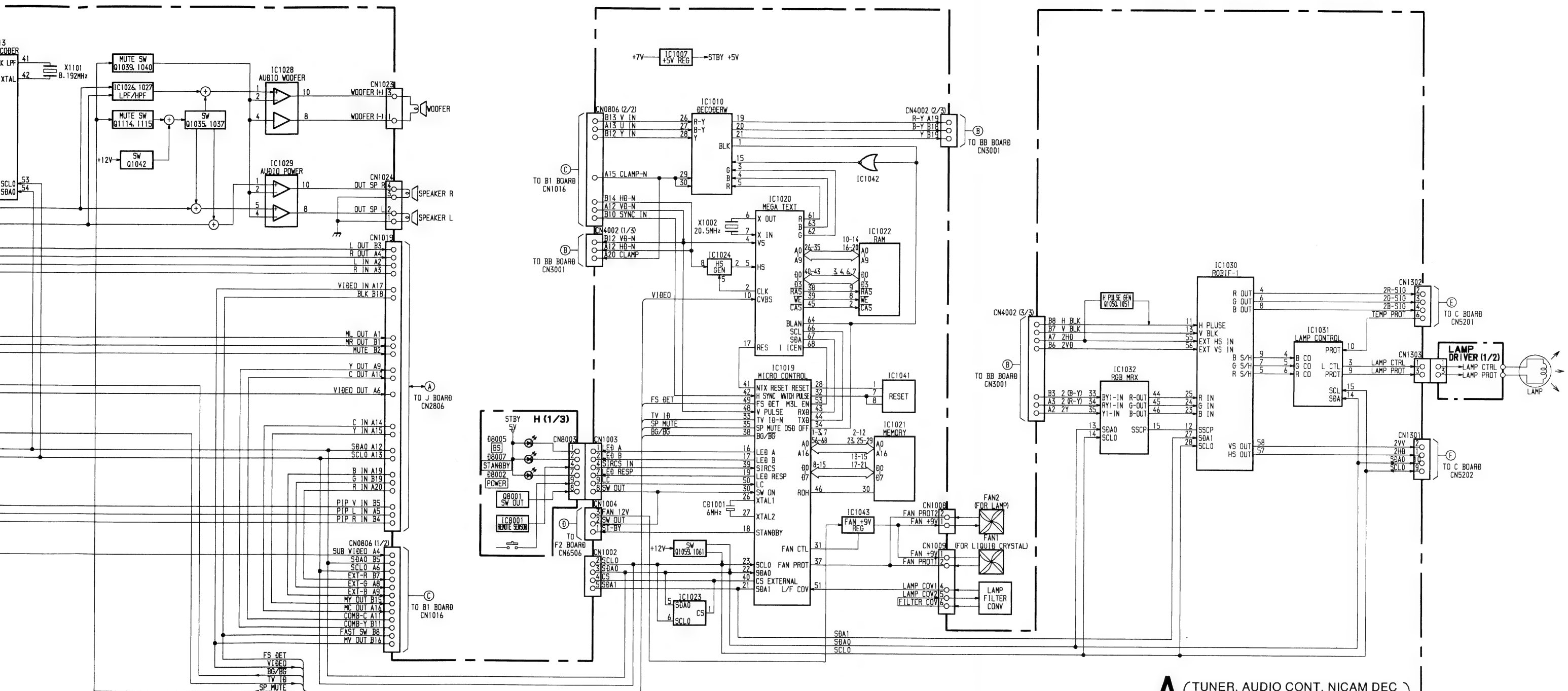
#### 4-1. BLOCK DIAGRAMS





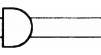
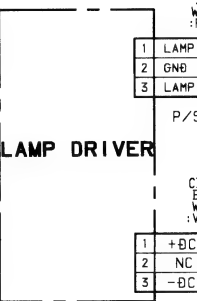
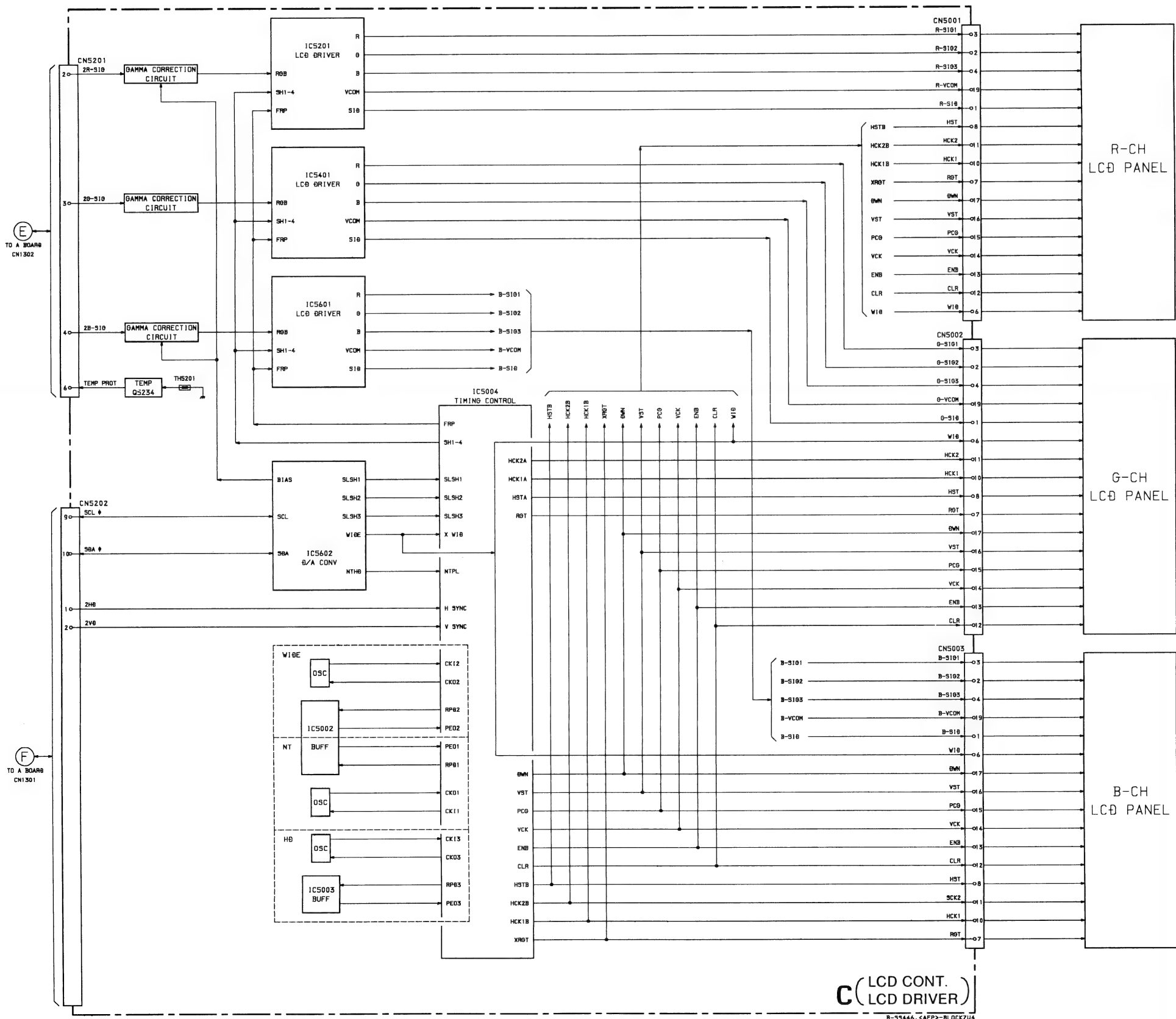
**B1** (DIGITAL COMB/CHROMA DECODER,  
TWIN PICTURES,  
SECAM DECODER)





**A** (TUNER, AUDIO CONT. NICAM DEC )  
( MICRO CONT. MEGA TEXT )

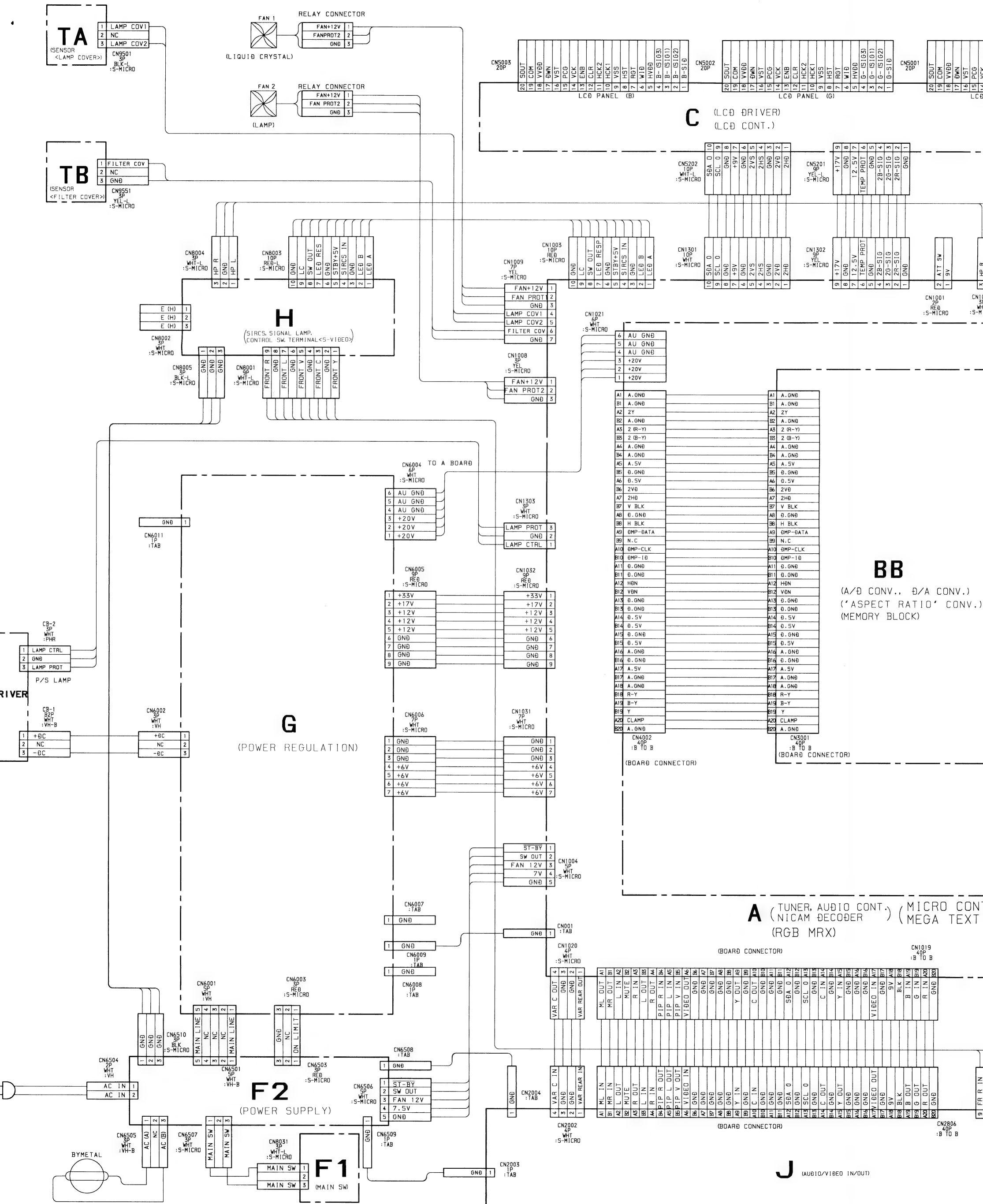
B-SS446.<AEP>-BLOCKZU3

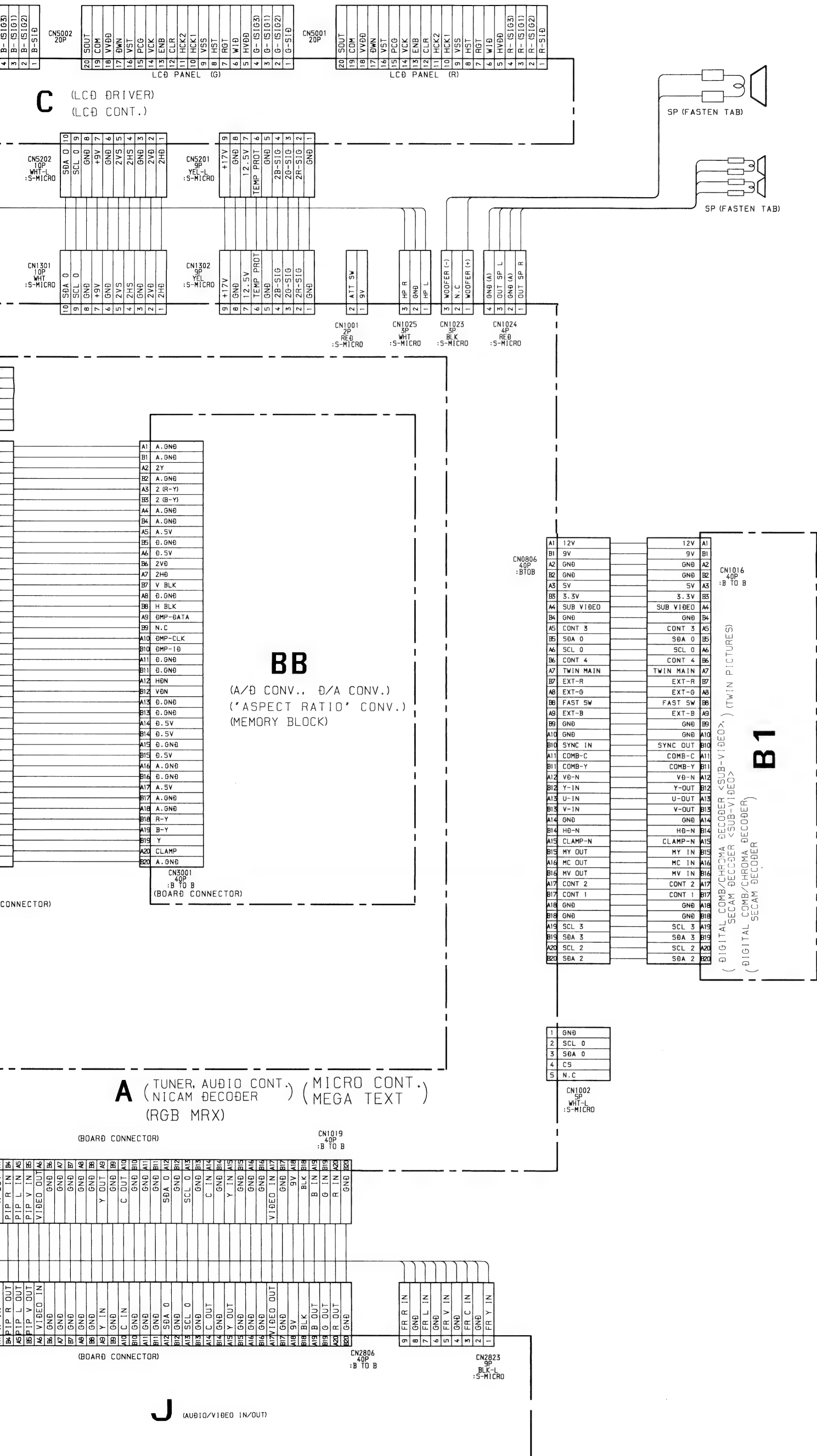


C (LCD CONT. LCD DRIVER)

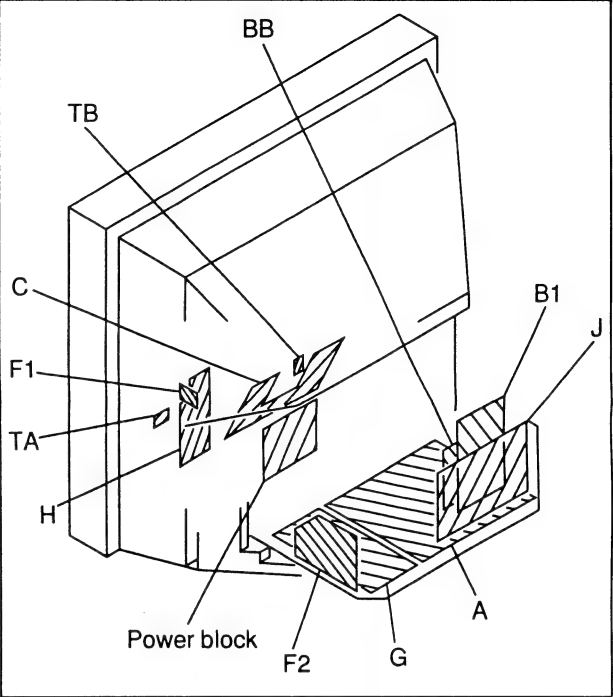
B-35446-CAEP-BLOCK2U4

FRAME SCHEMATIC DIAGRAM





### 4-3. CIRCUIT BOARDS LOCATION



### 4-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

#### Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 V or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm  
Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.

\* : Can not be measured.

NO MARK: PAL

( ) : SECAM

- Circled numbers are waveform references.

: B + bus.

: B - bus.

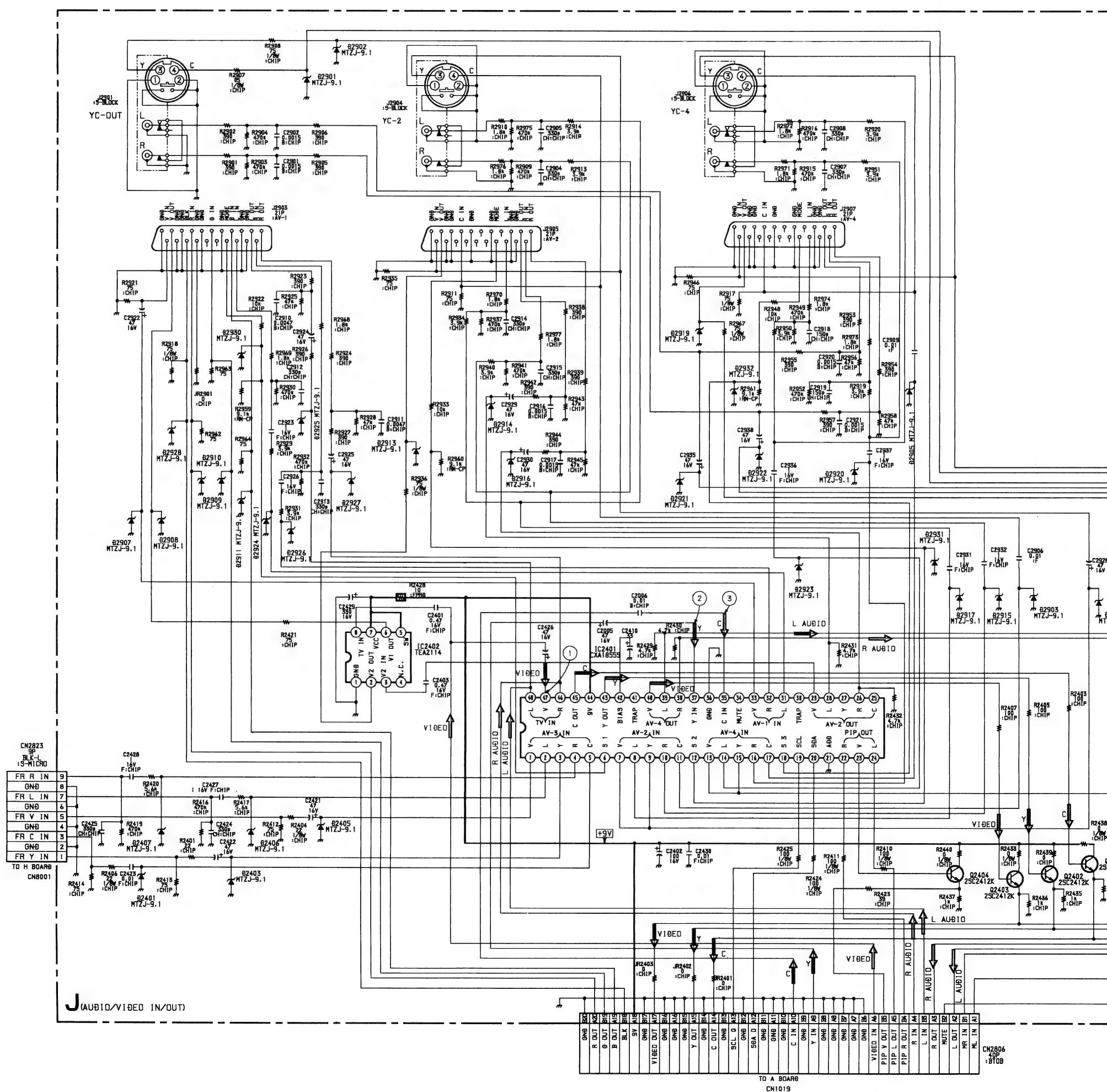
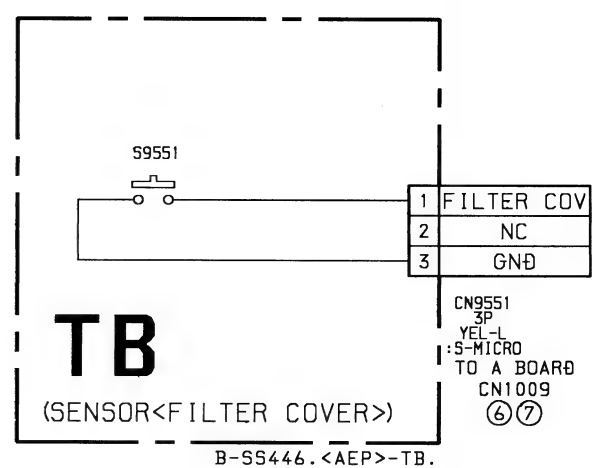
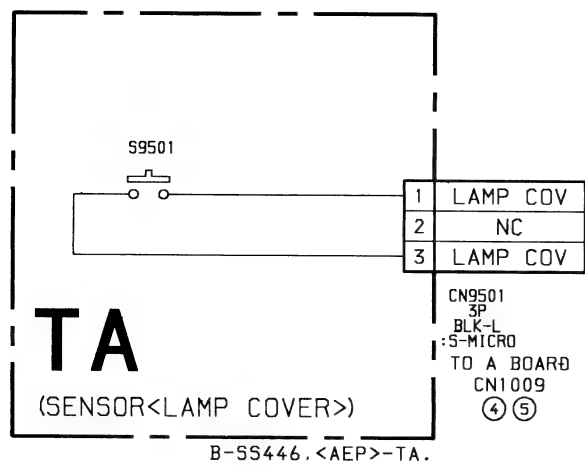
: Signal path.

#### Reference Information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

**Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.**

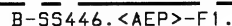




Schematic diagrams

F1 F2 G H J TA TB boards →



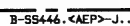


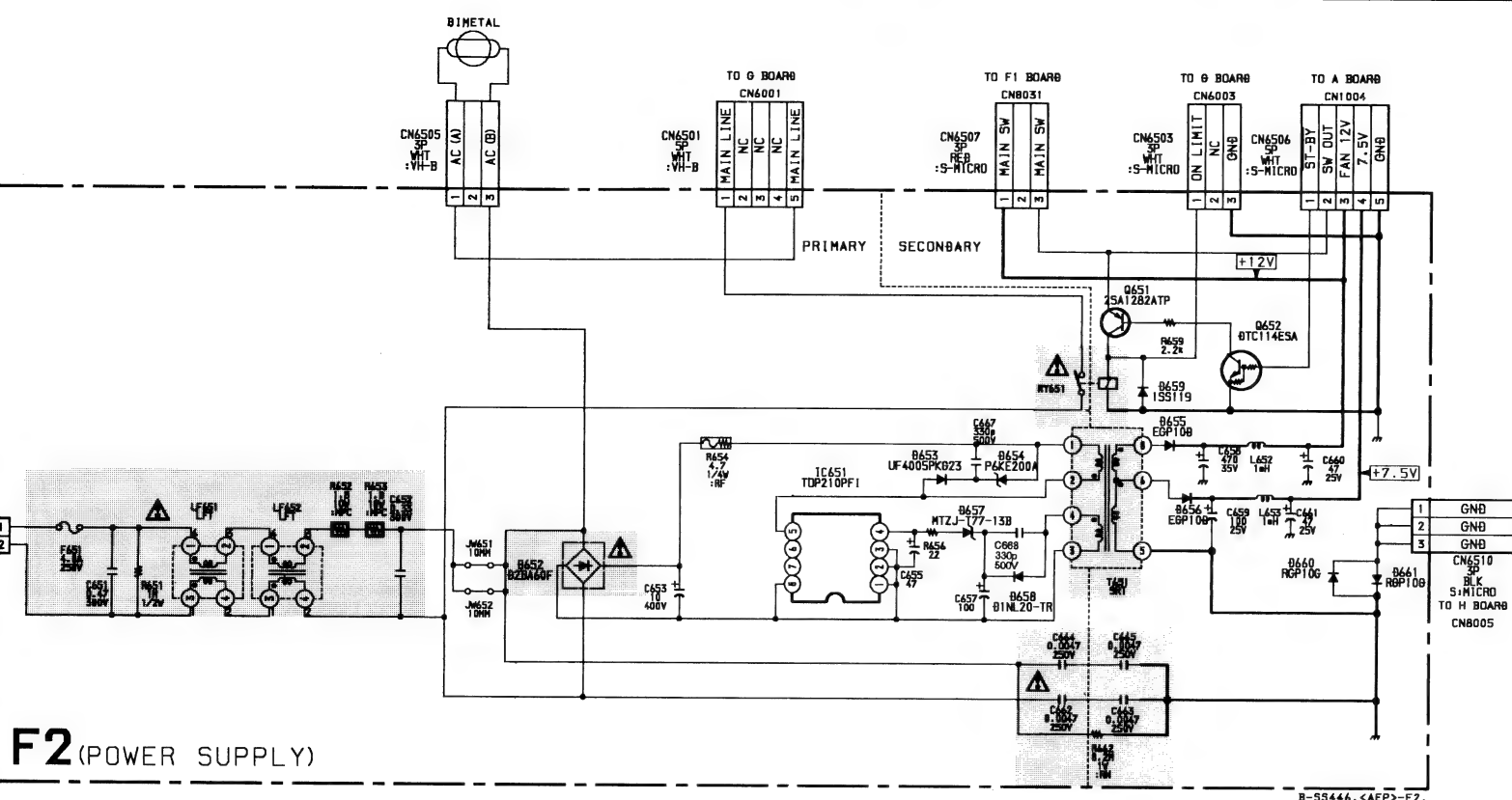
## ● J BOARD WAVEFORMS



### ● J BOARD VOLTAGE LIST

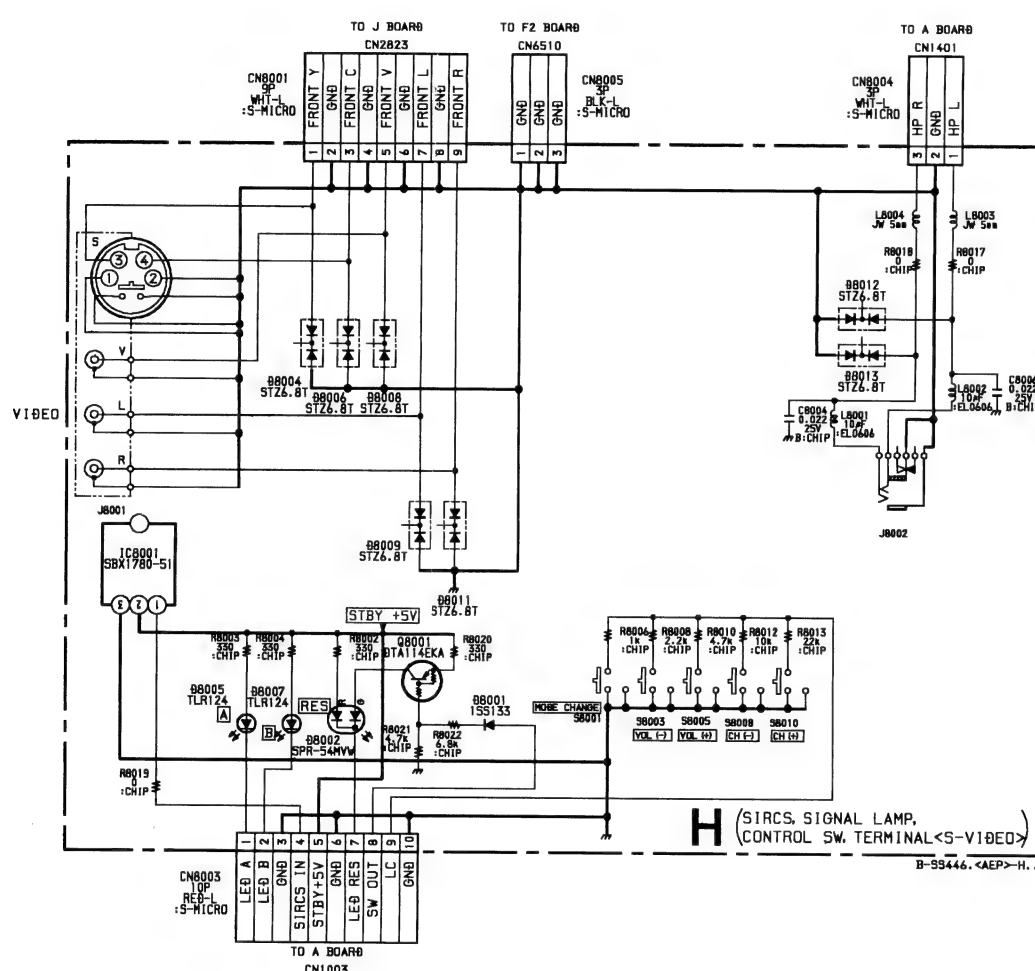
Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
C2401	1	4.6		38	4.6
	2	4.6		39	4.6
	3	4.6		40	4.6
	4	4.6		42	4.6
	5	4.6		43	4.6
	6	0		45	4.5
	7	4.6		46	4.6
	8	4.6		47	4.6
	9	4.6		48	4.6
	10	4.6			
	11	4.6	IC2402	2	2.1
	12	0		3	2.8
	13	4.6		6	1.9
	14	4.6		8	2.3
	15	4.6			
	16	4.6	Q2001	B	0.1
	17	4.6		C	0
	18	0			
	19	*	Q2002	B	0.1
	20	*		C	0
	22	4.6			
	23	4.6	Q2401	B	4.5
	24	4.6		E	3.9
	26	4.6			
	28	4.6	Q2402	B	4.5
	29	0		E	3.9
	31	4.6			
	32	4.6	Q2403	B	4.5
	33	4.6		E	3.8
	35	4.6			
	37	4.6	Q2404	B	4.5
				E	3.8





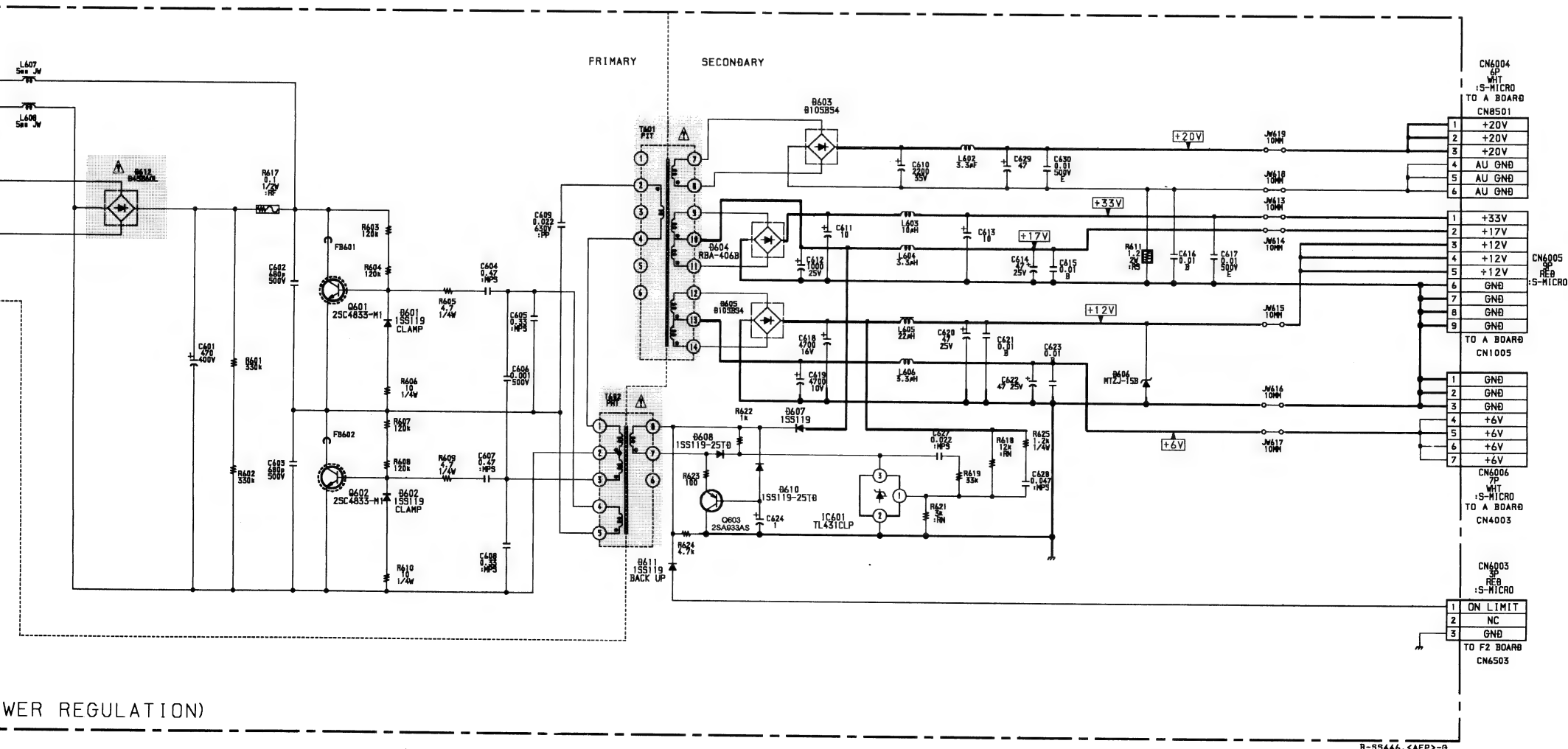
## ● F2 BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]
IC651	4	5.7
	5	237.2
Q651	B	8.1
	C	8.9
	E	8.9
Q652	B	4.2
	C	0



### ● H BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]
IC8001	1	4.4
	2	4.5



WER REGULATION)





**F2** [POWER SUPPLY]

**G** [POWER REGULATION]

**H** [SIRCS, SIGNAL LAMP, CONTROL SW TERMINAL (S-VIDEO)]

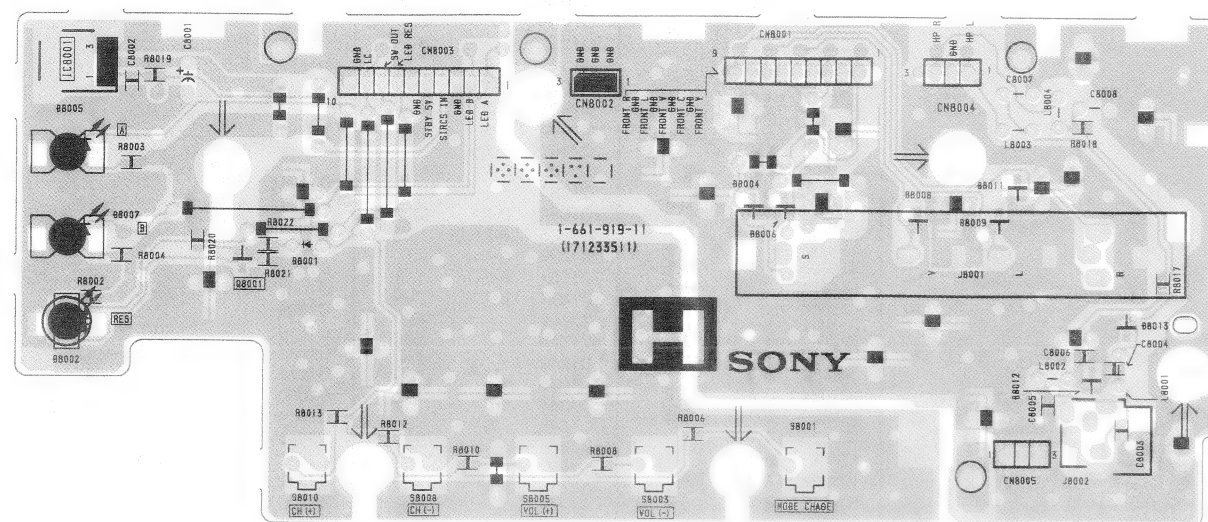
**J** [AUDIO/VIDEO IN/OUT]

**F1** [MAIN SW]

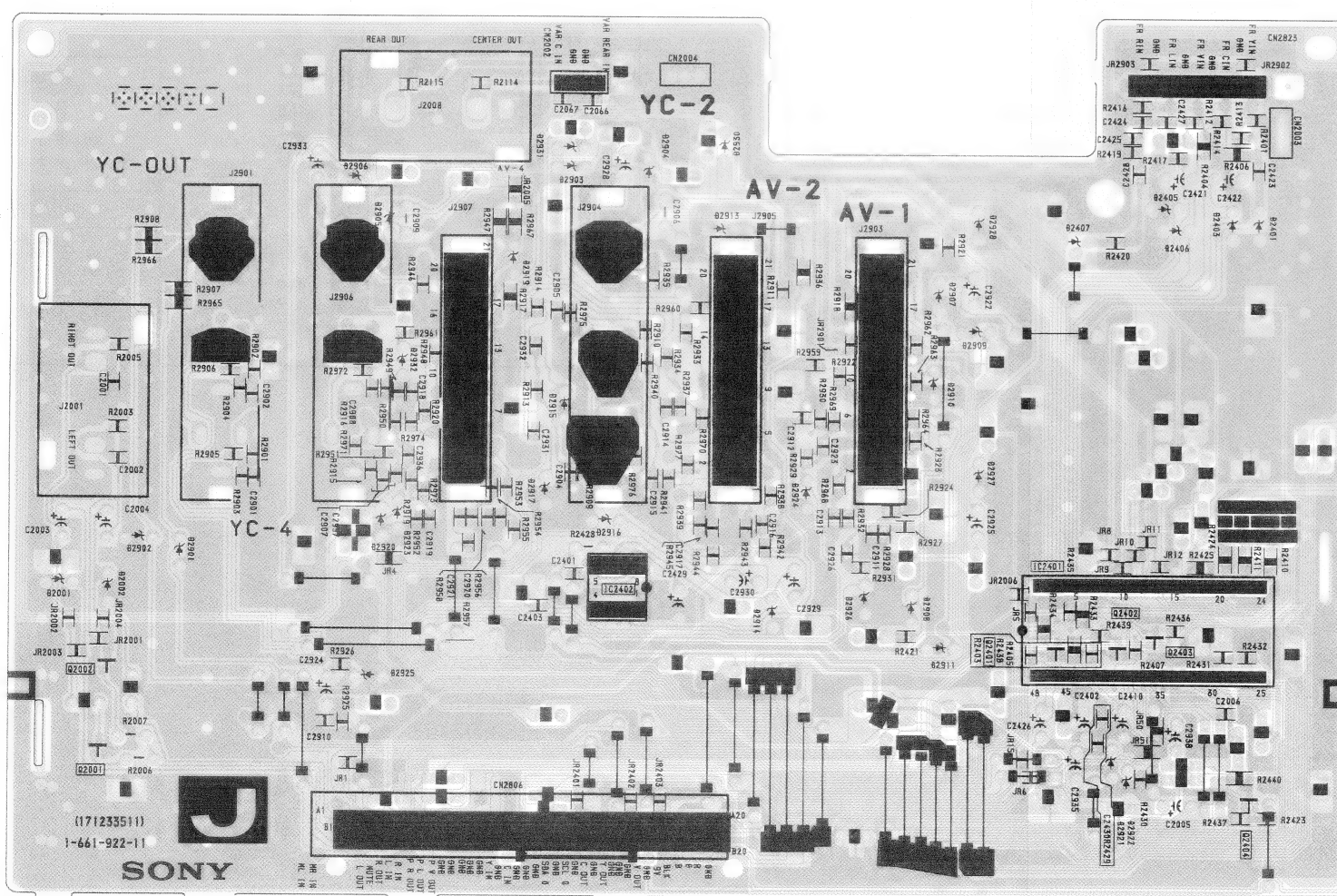
**TA** [SENSOR (LAMP COVER)]

**TB** [SENSOR (FILTER COVER)]

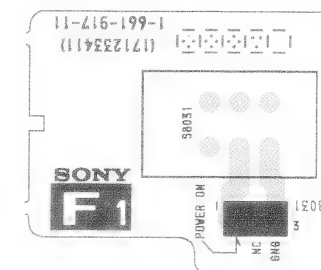
— H Board —



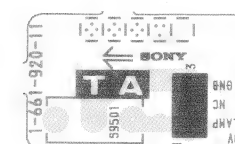
— J Board —



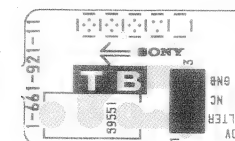
— F1 Board —



— TA Board —



— TB Board —



The diagram is a detailed schematic of a Sony electronic device, likely a television or video recorder. It shows a complex circuit board layout with numerous components labeled with alphanumeric codes (e.g., R101, C101, IC101). The components are organized into functional blocks, including:

- VARIABLE TUNING:** Located at the top left, featuring a large variable capacitor (C101) and associated tuning circuitry.
- TUNING:** Located in the upper center, featuring a large tuning coil (L101) and associated circuitry.
- VIDEO:** Located in the center, featuring a large video amplifier (IC101) and associated circuitry.
- AUDIO:** Located in the lower center, featuring a large audio amplifier (IC101) and associated circuitry.
- POWER:** Located at the bottom, featuring a large power transformer (T101) and associated power supply circuitry.

A large "SONY" logo is prominently displayed in the center of the diagram. The diagram is oriented horizontally with a coordinate grid (A-J, 1-5) overlaid. The grid is labeled with letters A through J along the top and bottom edges, and numbers 1 through 5 along the left and right edges. The diagram is a high-contrast, black-and-white image, typical of a technical drawing or a photocopy of a schematic.

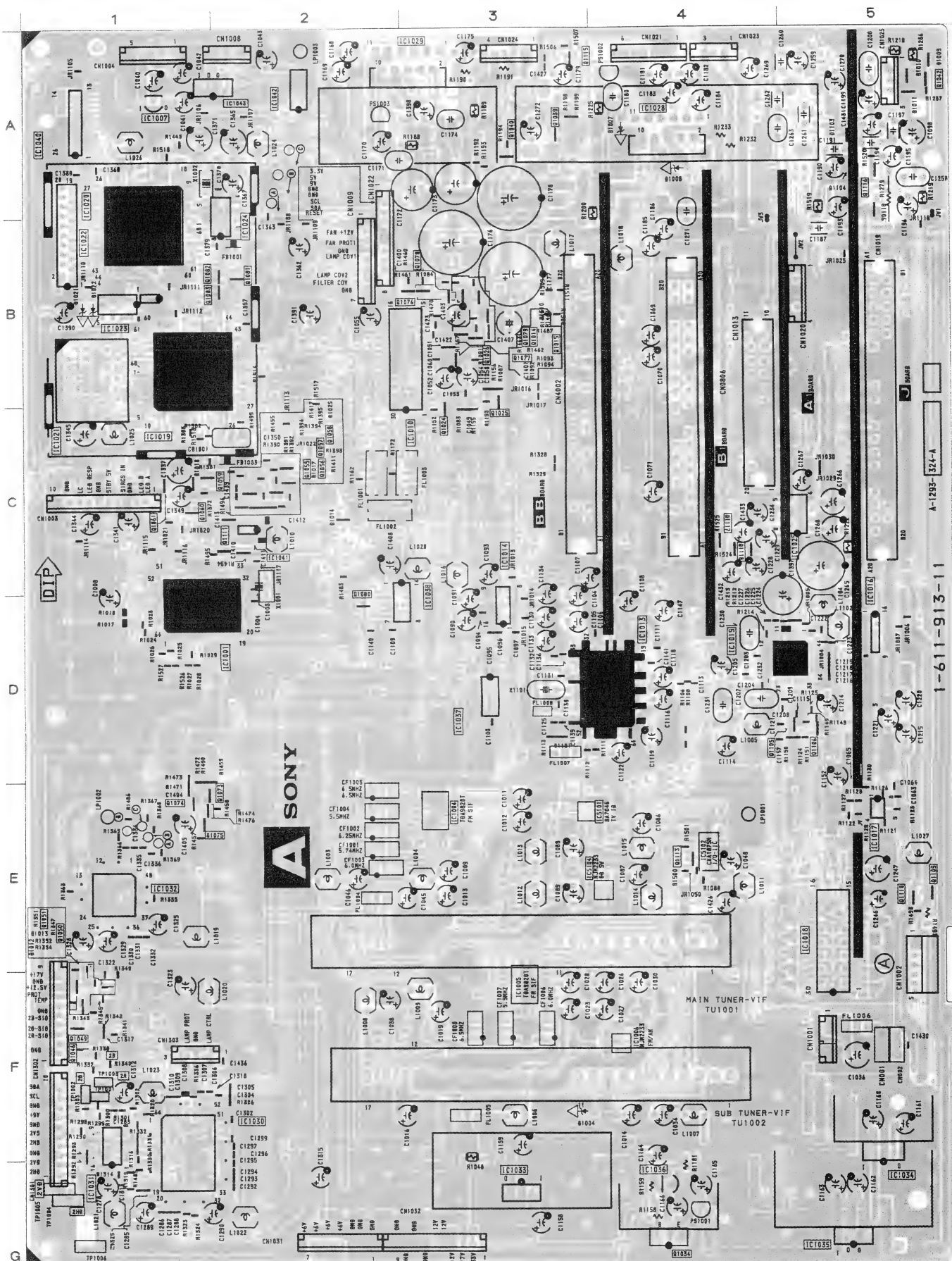
- 48 -

● A BOARD SEMICONDUCTOR LOCATION

IC								
	(Conductor Side)	(Component Side)						
IC1001		D-1	Q1019	C-3		Q1112	B-4	
IC1003	E-2		Q1020	C-3		Q1114	A-3	
IC1004	E-3	E-3	Q1021	C-3		Q1115		A-3
IC1005	F-3		Q1022	C-3		Q1116		A-5
IC1006	F-2	F-4	Q1024		C-3	Q1117		C-4
IC1007	A-5	A-1	Q1025		C-3	Q1118		C-4
IC1009	E-2		Q1026		B-3	Q1119	F-5	
IC1010	B-3	B-3	Q1027	E-3		Q1120	F-5	
IC1012	E-2		Q1028	E-3		DIODE		
IC1013		D-4	Q1029	E-3			(Conductor Side)	(Component Side)
IC1014		D-3	Q1030	E-3		D1001	E-2	
IC1015		D-4	Q1031	F-4		D1002	A-3	
IC1017		E-5	Q1032	F-4		D1003	E-4	
IC1018	E-1	E-5	Q1033	F-3	G-4	D1004	F-2	F-3
IC1019		B-1	Q1034	G-2		D1007	A-2	A-4
IC1020		A-1	Q1035	A-3		D1008	A-2	A-4
IC1021		B-1	Q1036	A-1		D1009		A-5
IC1022	B-5	B-1	Q1037	A-1		D1010		A-5
IC1023	B-5	B-1	Q1038	B-1	A-3	D1011		A-5
IC1024	B-4	B-2	Q1039		A-3	D1012		F-1
IC1025	C-1	C-5	Q1040		A-5	D1013		F-1
IC1026	A-1		Q1042			D1014		C-2
IC1027	A-1		Q1043	F-5		D1015	C-4	
IC1028	A-2	A-4	Q1044	F-5		D1018		C-1
IC1029	A-3	A-3	Q1045	F-5	F-1	D1019	B-5	
IC1030		F-1	Q1046			D1020	B-5	
IC1031		G-1	Q1047	F-5	F-1	D1021	B-5	B-1
IC1032		E-1	Q1048		F-1	D1022	B-5	B-1
IC1033	G-3	G-3	Q1049		F-1	D1024	B-5	
IC1035	G-1	G-5	Q1050			D1026	B-4	
IC1036	G-2	G-4	Q1051			D1027	D-2	
IC1041		C-2	Q1052	B-4		D1101		D-3
IC1042		A-2	Q1053	B-4		D1102	D-3	
IC1043	A-4	A-2	Q1059		C-1	D1103		A-5
TRANSISTOR			Q1060		C-1	D1104		A-5
	(Conductor Side)	(Component Side)	Q1061		C-1	D1105	A-1	
Q1001	E-2		Q1062	A-5		D1106		A-5
Q1003	E-4		Q1064	B-5		TUNER		
Q1004	E-4		Q1065	B-4			(Conductor Side)	(Component Side)
Q1005	E-4		Q1066	A-4		TU1001	E-3	E-3
Q1007	F-2		Q1067	A-4		TU1002	F-3	F-3
Q1008	F-2		Q1068	A-4		CRYSTAL		
Q1011	A-4		Q1069	B-4			(Conductor Side)	(Component Side)
Q1012	F-1		Q1070	B-5		X1001	C-4	C-2
Q1013	B-3		Q1071	E-1		X1002	A-4	A-1
Q1014		B-3	Q1072	E-1		X1101	D-3	D-3
Q1015		B-3	Q1076		B-3			
Q1016	E-2		Q1077		B-3			
Q1017	C-4		Q1078		B-3			
Q1018	C-4	C-1	Q1079		B-3			
			Q1105		D-5			
			Q1106		D-5			
			Q1107	D-2				
			Q1108	C-2				
			Q1109		E-5			
			Q1110		E-5			

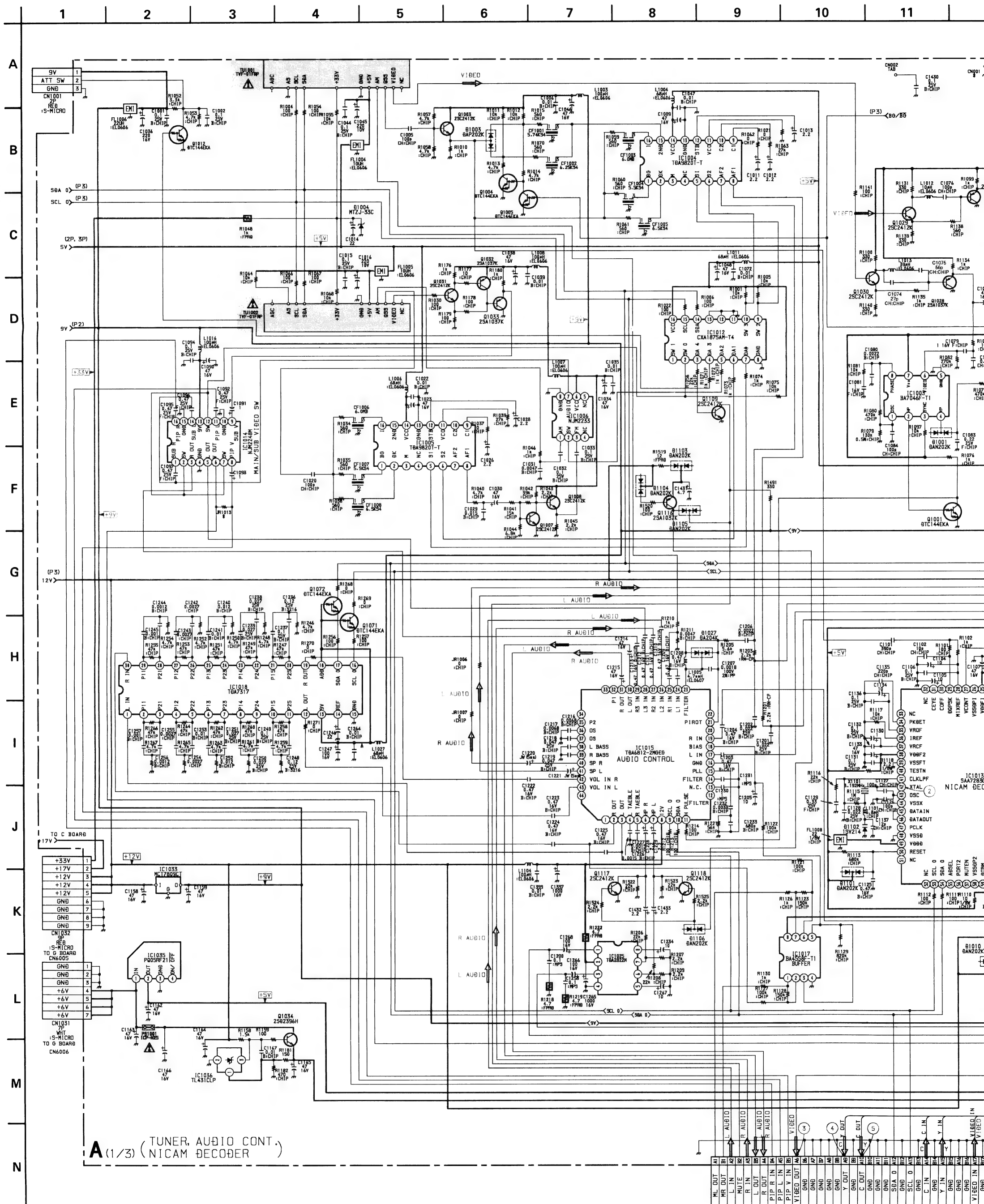


— A Board (Component Side) —

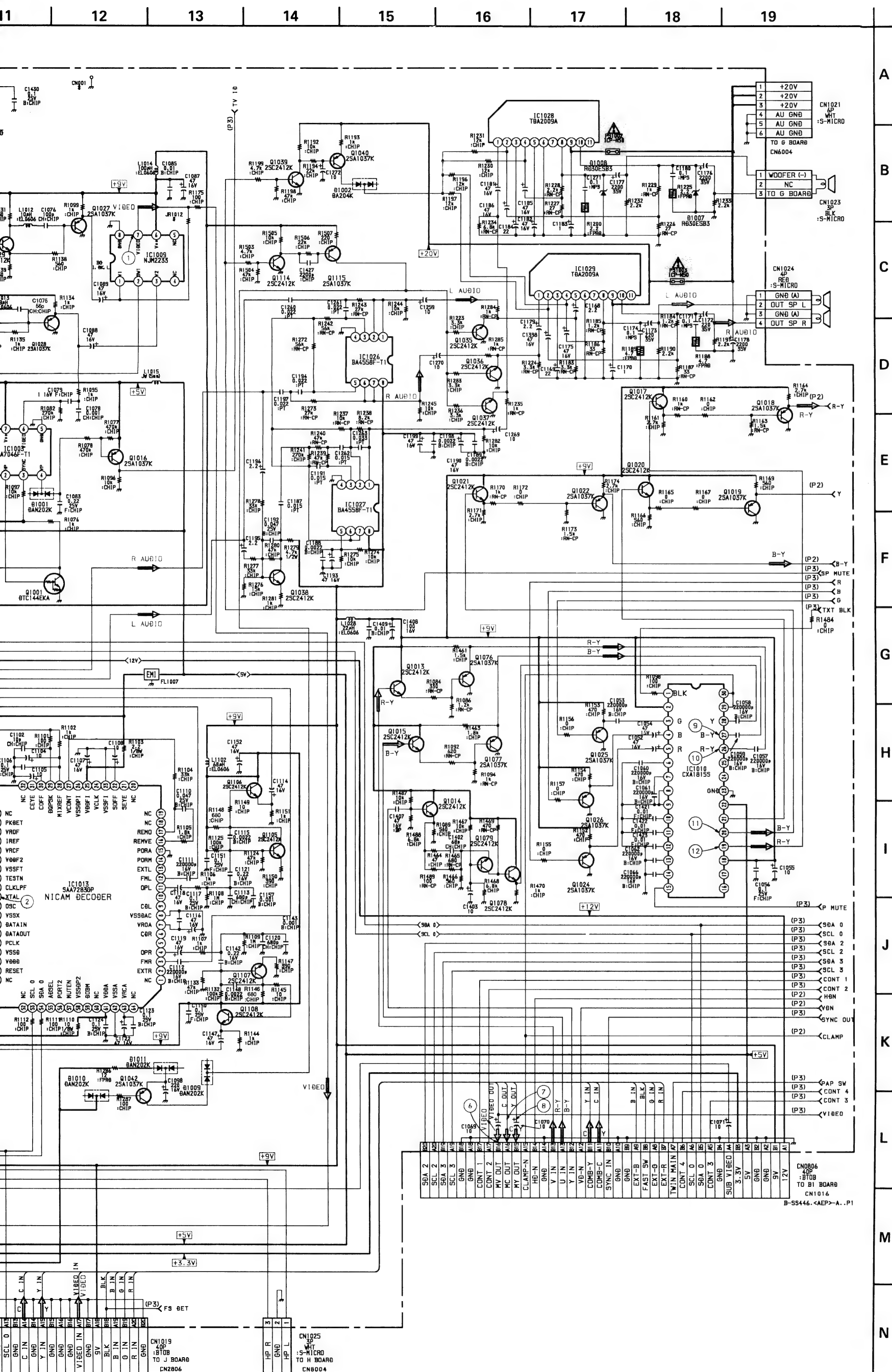


• : Pattern of the rear side.

## ● A (1/3) BOARD WAVEFORMS



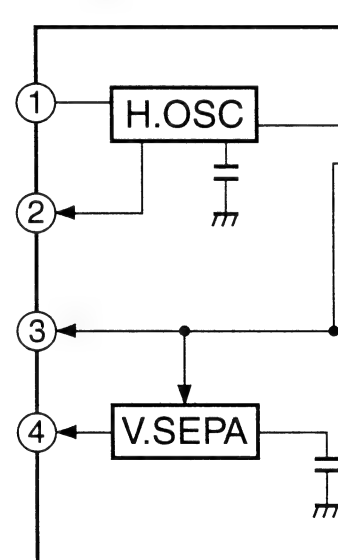




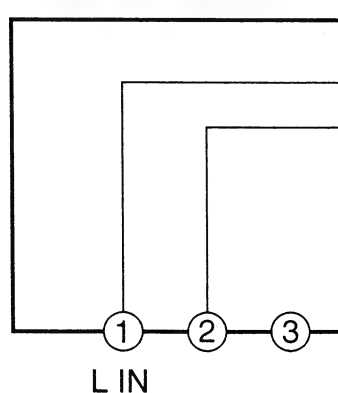
● A (1/3) BOARD VO

Ref.	Pin No.	Voltage [V]	F
IC1003	1	2.0	IC
	2	4.5	
	3	0.7	
	4	4.9	
	6	0	
8	1.8		
IC1004	1	2.6	
	2	0	
	5	5.0	
	6	5.0	
	7	2.3	
	8	2.2	
	9	2.1	
	10	2.2	
	11	2.7	
	12	4.4	
	15	2.6	
16	0		
IC1005	1	2.5	
	2	0	
	3	0	
	5	4.6	
	6	4.6	
	7	2.3	
	8	2.2	
	9	2.3	
	10	2.2	
	11	2.7	
	12	4.3	
	15	2.6	
	16	0	
IC1006	1	5.5	
	2	4.5	
	3	5.4	
	6	9.0	
	7	4.7	
IC1009	1	5.4	
	2	0.9	
	3	5.5	
	6	8.9	
	7	4.7	
IC1010	1	0	
	2	7.6	
	3	5.0	
	4	4.6	
	5	4.6	
	6	2.9	
	7	2.9	
	8	0	
	9	0	
	10	4.4	

• A (1/3) BOARD  
IC1003 BA7046F-T1



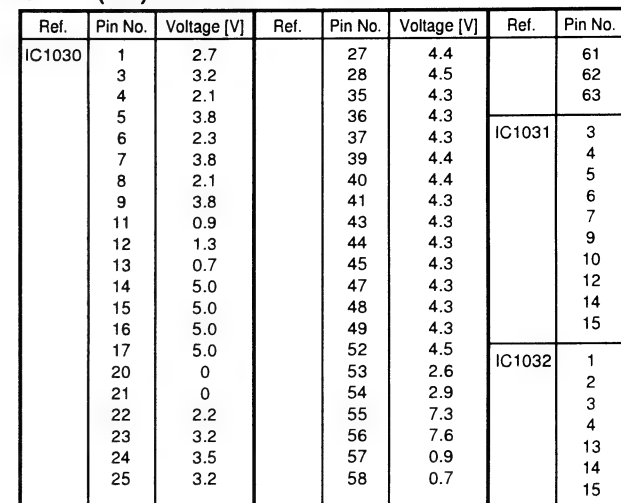
• A (1/3) BOARD  
IC1028, 1029 TDA2009A



● A (1/3) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]																									
IC1003	1	2.0		11	4.4		63	2.4	IC1018	1	4.5	IC1029	1	0.8		E	3.3	Q1037	B	0.2																						
	2	4.5		IC1014	1		4.5	2		4.5	2		1.5	Q1018		B	1.5		E	0																						
	3	0.7			2		2.4	3		4.5	3		10.3			Q1038	B	1.3																								
	4	4.9			3		3.9	4		4.5	4		1.2	Q1019			B	3.7	C	5.3																						
	6	0			5		3.8	5		4.5	5		0			E	4.3	0.7																								
	8	1.8			6		3.6	6		4.5	8		0																													
IC1004	1	2.6		19	3.0		7	2.4		7	4.5	IC1033	I	12.3	Q1020	B	4.3	B	0.7																							
	2	0		8	2.7		8	4.5		O	9.0		E	3.7		C	0																									
	5	5.0		9	4.8		9	4.5		IC1036	1	2.5	Q1021	B	3.9		B	7.8																								
	6	5.0		11	4.5		10	4.5			3	4.0		E	3.3	C		-1.9																								
	7	2.3		14	0		12	4.5		Q1001	B	4.5	Q1022	B	1.9		E	8.7																								
	8	2.2		16	4.6		14	4.5			C	0.2		E	2.5	Q1071		C	4.6																							
	9	2.1		IC1015	2		6.1	16		4.4	Q1002	B	0	Q1024	B		0.7	C	4.6																							
	10	2.2			3		6.1	17		3.6		E	0		E	1.4	Q1072		C	3.9																						
	11	2.7			4		6.0	19		4.5	Q1003	B	4.4	Q1025	B	0.7		B	4.0																							
	12	4.4			5		0	20		4.5		E	3.8		E	1.4	Q1076		E	3.7																						
15	2.6	6	6.1		21	4.5	Q1004	B	0	Q1026	B	0	B	4.3																												
16	0	7	6.1	22	4.5	C		9.0	E		1.4	E		3.4																												
IC1005	1	2.5		6	4.6		9	*		23	4.5	Q1005	B	1.0	Q1027	B	1.2	B	0																							
	2	0		10	*		24	4.5		C	0		E	1.8		Q1078	E		5.8																							
	3	0		11	0.2		25	4.5		Q1007	B	0.6	Q1028	B	1.2		B	3.5																								
	5	4.6		13	3.1		26	4.5			C	4.5		E	1.9	C		6.4																								
	6	4.6		14	3.2		27	4.5		Q1008	B	4.5	Q1029	B	1.8		E	2.8																								
	7	2.3		15	4.0		28	4.5			E	3.9		C	7.8	Q1105		B	2.3																							
	8	2.2		17	6.0		29	4.5		Q1009	B	8.1	Q1030	B	1.8		C	4.7																								
	9	2.3		18	6.0		30	4.5			C	8.8		E	7.8	E		0																								
	10	2.2		19	6.0		31	6.1		Q1010	B	2.0	Q1031	B	2.1		B	2.3																								
	11	2.7		20	4.5		32	0			C	1.8		E	1.5	C		4.7																								
12	4.3	21	6.1	36	6.0	E	0	Q1012	B	4.6	Q1032	B	8.3	E	1.7																											
15	2.6	23	6.1	37	6.0	Q1013	B		5.5	Q1033		B	3.0		B	7.0																										
16	0	24	6.1	38	6.1		E	4.8	E		3.6	Q1034	B	3.9		C	0.1																									
IC1006	1	5.5		25	6.0		39	6.1		5	4.5			B	3.5			B	0.7																							
	2	4.5		40	6.1		6	4.5		E	2.8			B	0.2			C	9.0																							
	3	5.4		41	6.1		7	4.5			B			4.4				E	0																							
	6	9.0		42	6.1		IC1027	1			4.5							C	4.9		B	0.2																				
7	4.7	43	6.1	2	0	Q1015		B	5.4				E				0																									
IC1009	1	5.4		34	0.2				36			6.0				3	9.6		B		4.4		E	0																		
	2	0.9		35	2.3				37	6.0					4	1.4			C		4.9			B	0																	
	3	5.5		36	2.3		38		6.1					5	1.0				E	0																						
	6	8.9		37	2.3	39	6.1				8			0.2					E	0																						
	7	4.7		41	4.0	40	6.1							10					0.2		E			0																		
IC1010	1	0		42	3.4		41	6.1						1				1.1			B	5.4			B	0.2																
	2	7.6		43	2.4		42	6.1						2			1.3				E	4.8			E	0																
	3	5.0		44	0		43	6.1						3		9.6					B	4.4				E	0															
	4	4.6		45	2.7		IC1017	1	4.7						4	1.4						C				4.9		E	0													
	5	4.6		46	2.6			2	5.4						5	1.0						B				3.9			E	0												
	6	2.9		47	2.3			3	5.4							8						0.2							B	3.9		E	0									
	7	2.9		50	4.6			5	5.4													10							0.2			B	3.9		E	0						
	8	0		53	3.8			6	5.4																										B	3.9		E	0			
	9	0		54	4.4			7	4.7																													B	3.9		E	0
	10	4.4		61	4.8																																				B	3.9

### ● A (2/3) BOARD VOLTAGE LIST



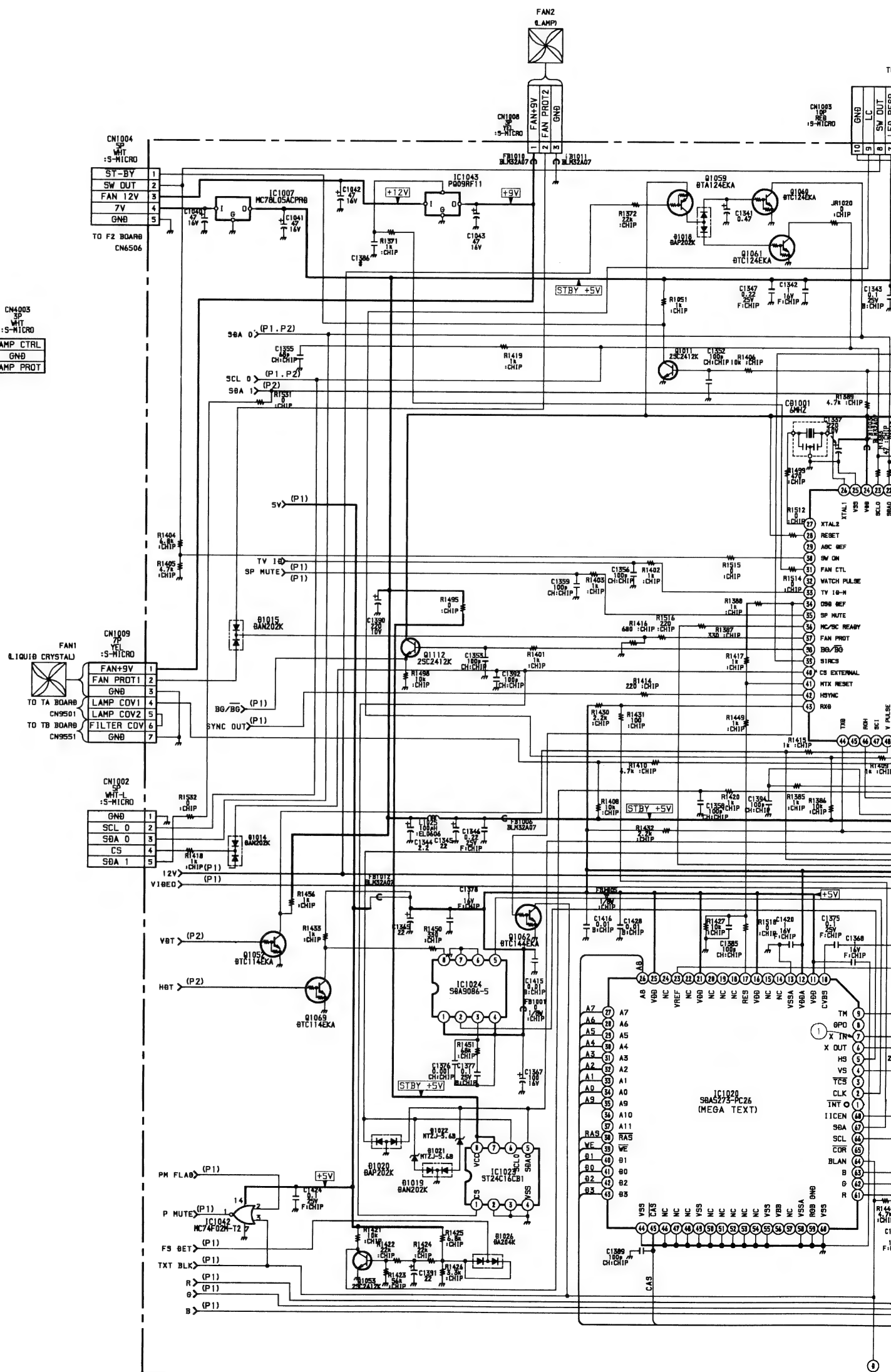
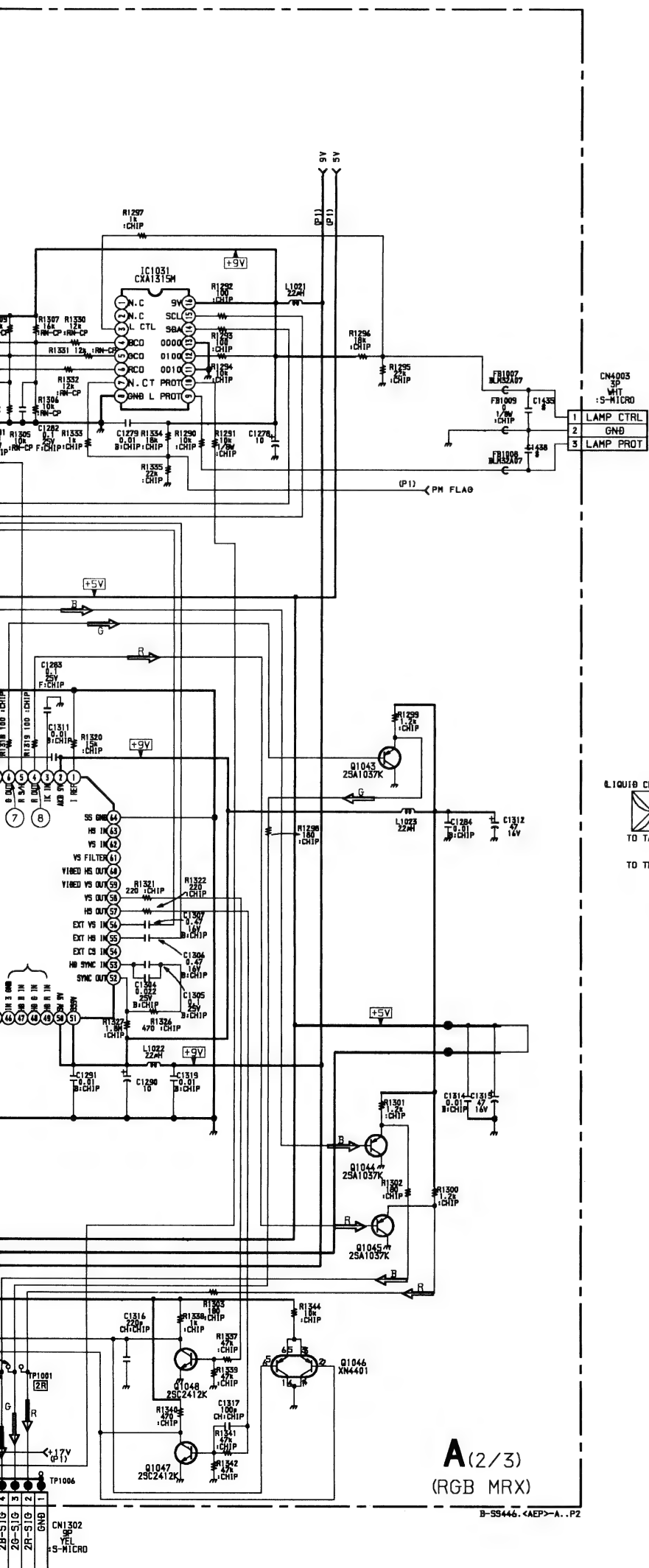
### Schematic diagram

**A (2/3), A (3/3) board →**

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
	61	2.4		25	4.1		3	4.3
	62	3.5		26	4.5		5	4.0
	63	2.6		30	0		6	4.3
IC1031	3	5.3		33	4.4	Q1047	B	0.2
	4	4.4		34	4.4		C	4.0
	5	4.4		35	4.7			
	6	4.5		44	2.5	Q1048	B	0.4
	7	5.3		45	2.8		C	4.0
	9	0		46	2.6			
	10	0		47	8.9	Q1049	B	0.7
	12	9.0		48	1.6		E	1.3
IC1032	1	6.2	Q1043	B	2.2	Q1050	1	0.3
	2	6.2		E	0		2	0.4
	3	6.2	Q1044	B	2.0		5	0.3
	4	0		E	2.7		6	0
	13	4.5	Q1045	B	2.0	Q1051	1	5.0
	14	4.5		E	0		2	5.0
	15	0.6		2	4.0		5	0.2
							6	0.2

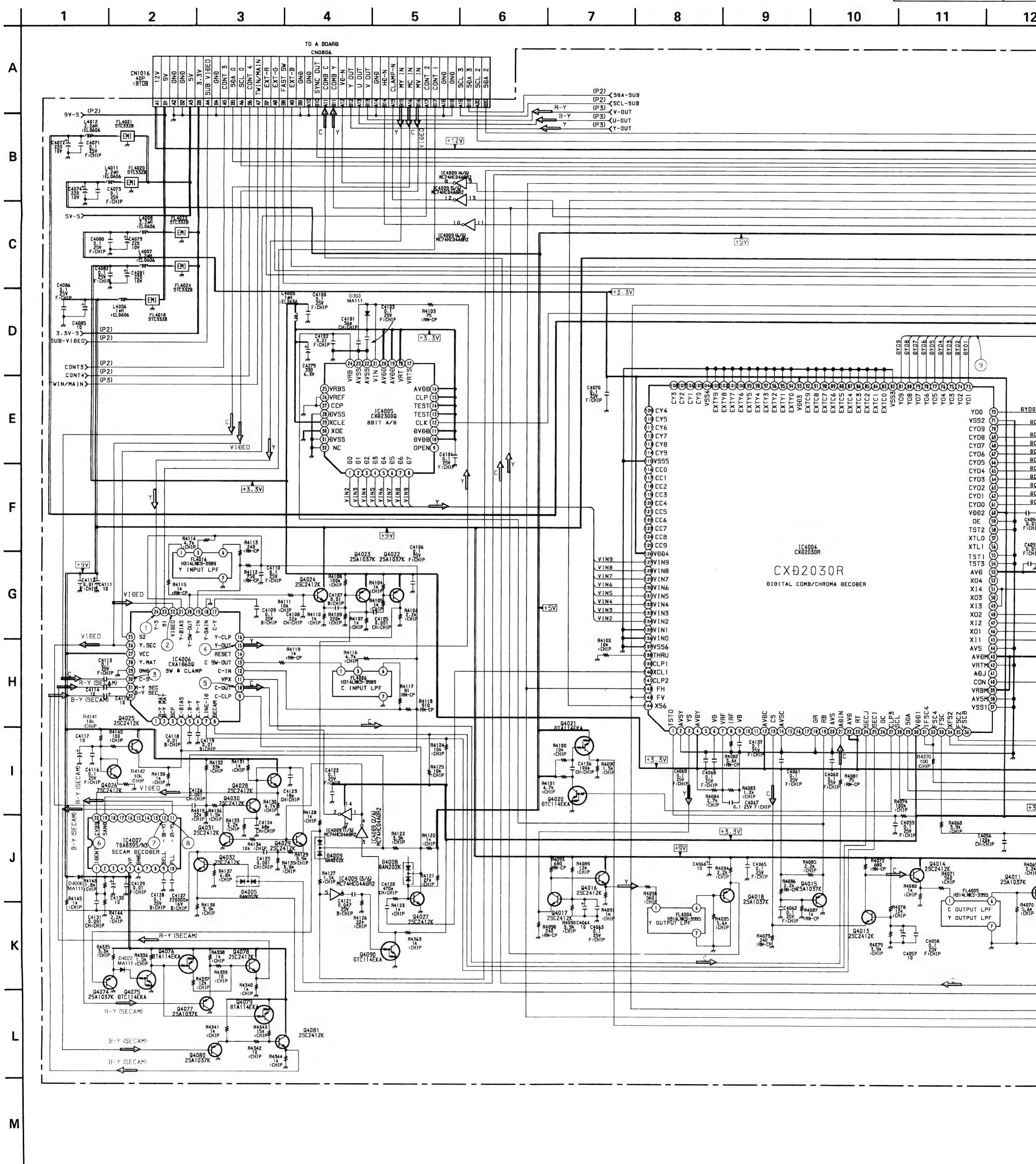
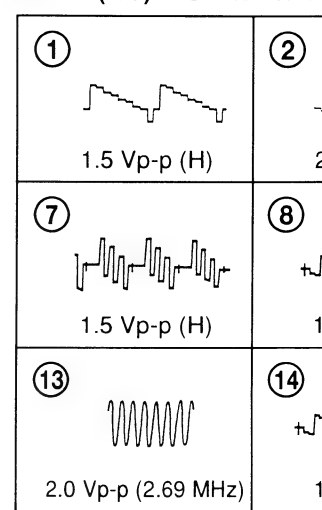
## ● A (3/3) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC1001	1	0		8	*		34	0.2		61	*		33	0.2
	2	0		9	*		35	1.5		62	0		34	1.8
	3	4.9		10	*		36	4.9		63	0		35	0
	4	3.7		11	*		37	0.1		64	*		38	1.3
	7	0.1		12	*		38	1.1		65	*		39	0.1
	8	0.1		13	*		39	4.4		66	0		40	4.1
	9	0.9		14	*		40	4.4		67	*		41	4.1
	10	0.1		15	*		41	0.2		68	*		42	4.1
	24	0.1		16	*		42	0.6					43	0
	25	4.9		17	*		43	4.7	IC1020	1	0		45	4.2
	28	2.5		18	0		44	4.7		2	2.1		56	0
	29	2.1		19	*		46	*		4	0.1		61	0
	47	4.5		20	4.4		48	0		5	0.1		62	0
	49	3.8		21	0		49	4.9		6	1.7		63	0
	59	4.2		22	4.2		50	4.4		7	1.8		64	0
	60	4.5		23	4.1		51	0		9	0		66	*
	61	3.5		25	0		52	4.4		10	1.0		67	*
	62	4.0		26	2.0		53	*		17	0.2		68	*
	63	0		27	2.1		54	4.4		23	2.9	IC1022	2	4.1
	64	0		28	2.2		55	4.6		26	0.3		3	0
IC1019	1	*		29	0		56	0		27	0.5		4	4.2
	2	*		30	3.7		57	*		28	0		6	4.2
	3	*		31	2.1		58	*		29	0.2		7	4.1
	7	*		32	2.2		59	0		30	0.3		8	0.1
				33	4.8		60	*		31	0.3			

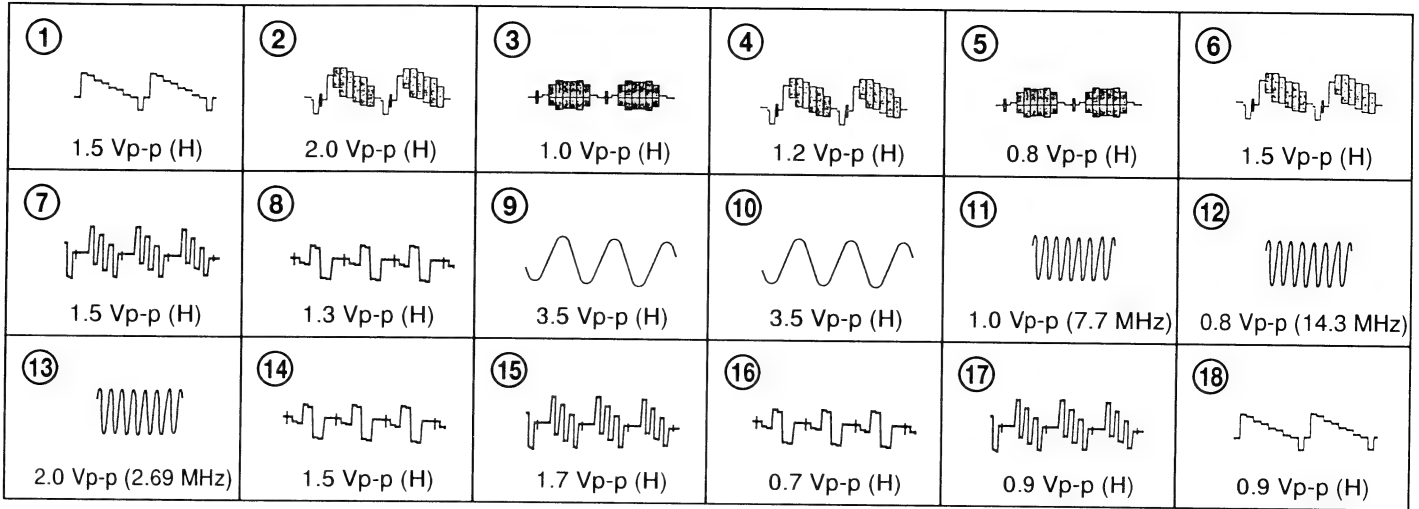




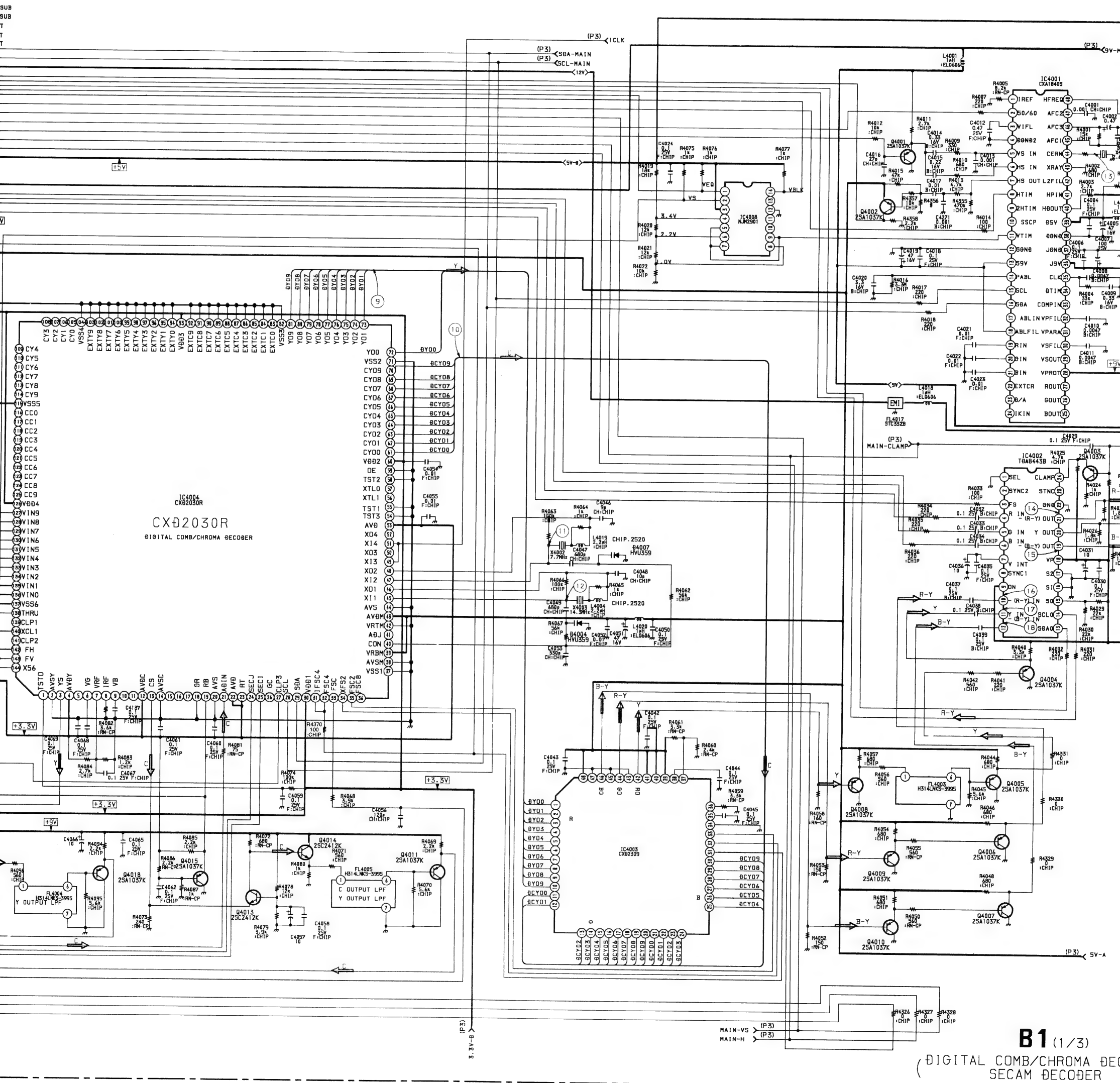




● B1 (1/3) BOARD WAVEFORMS



8 9 10 11 12 13 14 15 16 17 18 19



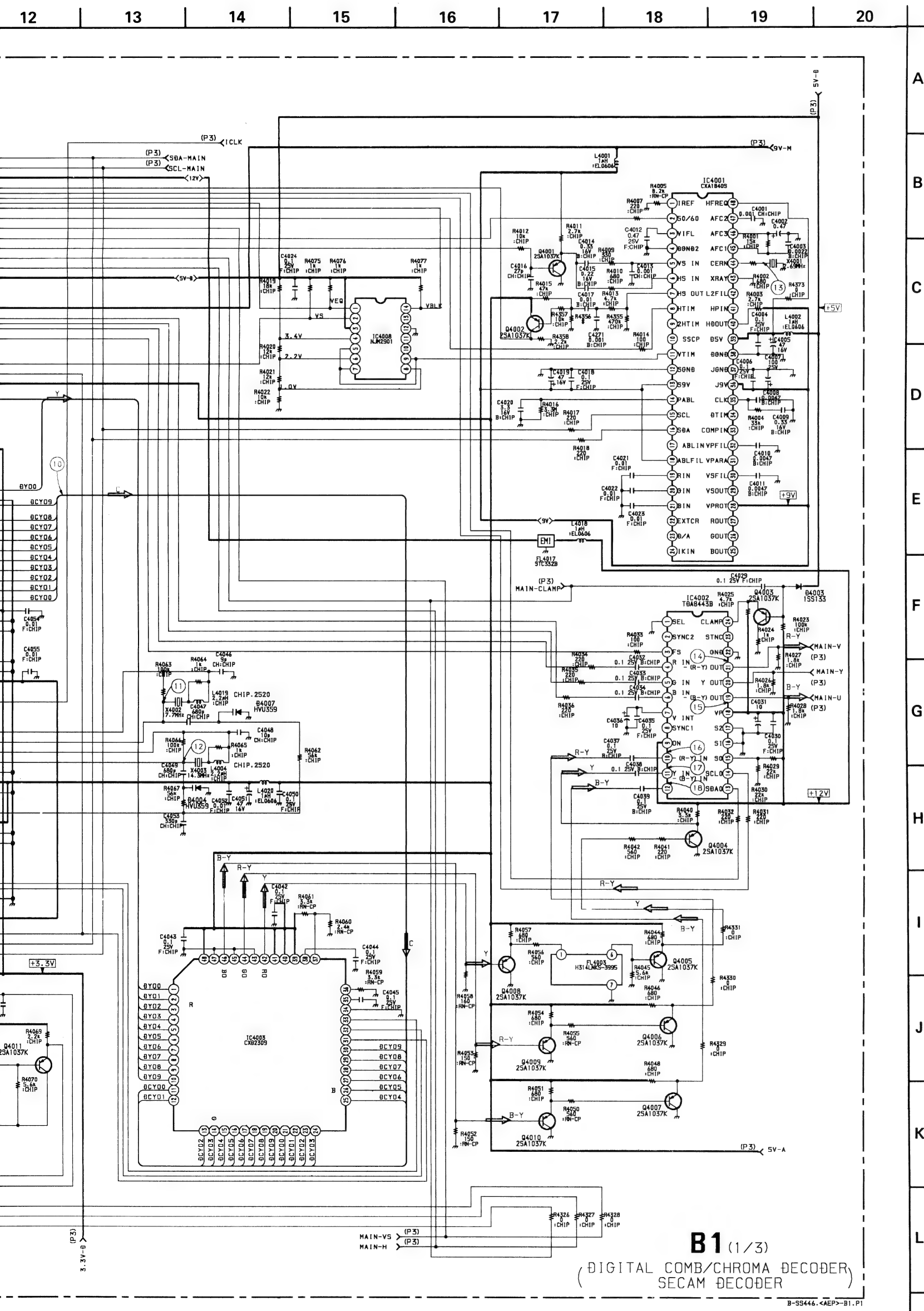
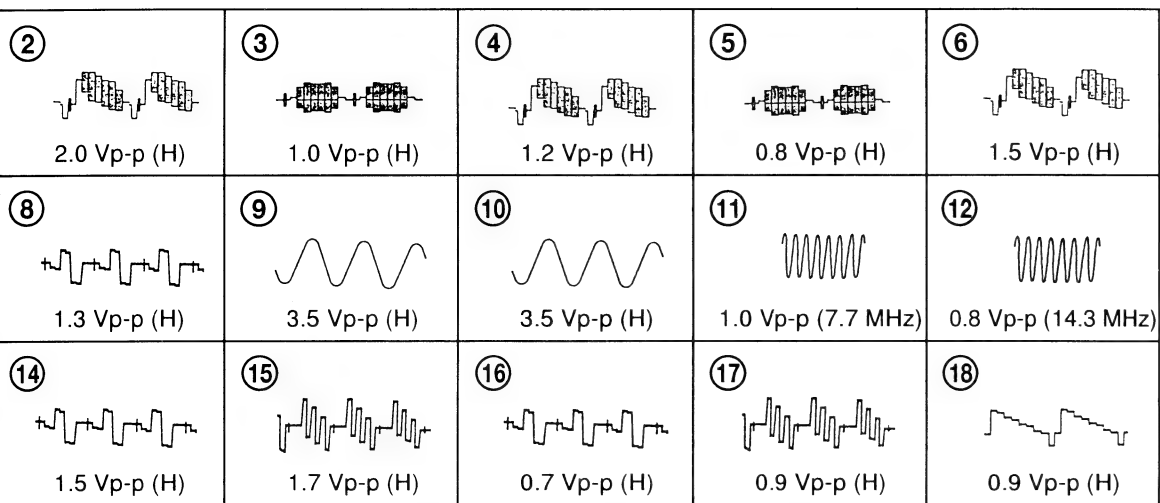
B1 (1/3)

(DIGITAL COMB/CHROMA DECODER)  
SECAM DECODER

Schematic diagram

← B1 (1/3) board

# WAVEFORMS



**B1 (1/3)**

(DIGITAL COMB/CHROMA DECODER)  
SECAM DECODER

B-S5446-4AEP-B1-P1

## B1 (1/3) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC4001	1	3.8	IC4001	2	0
	2	0.4		3	0
	3	5.6		4	3.1
	5	3.7		5	0.5
	6	3.1		6	0
	7	3.2		7	0
	8	1.8		8	3.1
	11	0.6		9	0.4
	14	0.1		10	1.6
	15	4.0		11	1.8
	16	3.3		12	3.1
	30	4.0		13	0.3
	32	4.0		14	*
	35	2.5	Q4001	B	5.4
	40	4.2		E	6.0
	44	2.5	Q4002	B	4.9
IC4002	45	4.6		C	0.6
	46	4.6	Q4003	B	1.8
	47	4.6		C	2.1
				E	2.4
	3	0.1	Q4004	B	1.9
	4	8.4		E	2.5
	5	8.3	Q4005	B	1.2
	6	8.4		E	1.9
	7	8.4	Q4006	B	1.3
	10	6.9		E	1.9
	11	7.1	Q4007	B	1.3
IC4003	12	6.9		E	1.9
	13	4.5	Q4008	B	0.8
	14	3.5		E	1.4
	15	6.1	Q4009	B	0.8
	19	5.5		E	1.6
	20	5.8	Q4010	B	0.8
	21	5.5		E	1.4
	24	2.2	Q4011	B	4.9
IC4004				E	5.5
	1	1.5	Q4013	B	2.2
	2	1.5		C	6.1
	3	1.5	Q4015	B	1.0
	4	1.6		E	1.7
	5	1.3	Q4017	B	2.1
	6	0		C	0
	7	0		E	0
	8	1.2	Q4018	B	4.8
	9	1.4		C	0
	10	1.4		E	5.4
IC4005	11	1.3	Q4020	B	0.2
	12	1.3		C	4.5
	13	1.3	Q4021	B	4.9
	14	1.4		C	0.3
	15	1.4	Q4022	B	3.2
	16	1.3		C	0.2
	17	1.4	Q4023	B	3.4
	18	1.8		C	0.3
	19	1.4	Q4024	B	2.9
	20	1.6		E	2.2
	21	1.3	Q4025	B	3.5
IC4006	22	1.3		E	2.9
	23	1.2	Q4026	B	3.5
	24	1.4		C	3.5
	25	1.4	Q4027	B	0.6
	26	1.3		C	0.5
	27	1.4	Q4028	B	7.5
	28	1.4		E	6.9
	29	1.4	Q4029	B	0
	30	1.6		C	7.6
	31	0		E	0
	32	0	Q4030	B	3.4
IC4007	33	0		C	0
	34	0		E	2.8
	35	0	Q4031	B	0
	36	2.1		C	3.4
	37	2.1	Q4032	B	0.4
	38	2.6		C	8.7
	42	0.8		E	1.0
	44	0	Q4074	B	0.3
	46	0		E	0.9
IC4008			Q4075	B	0.5
	4	2.9		C	7.2
	5	2.9	Q4076	B	3.6
	6	4.2		C	3.0
	7	0	Q4077	B	3.1
	8	0		E	3.7
	9	0.5	Q4078	B	3.6
	10	2.5		E	3.1
	11	3.1	Q4079	B	7.2
	12	2.9		C	4.2
	13	2.9	Q4080	B	3.0
IC4009	14	2.4		E	3.6
	15	2.4	Q4081	B	7.2
	16	0.2		E	4.2
	17	3.1			
	19	2.9			
	20	3.0			
	21	2.9			
	22	3.6			
	23	0			
	24	3.6			
	25	0			
	26	3.6			
	30	4.2			
	31	0 (4.0)			
	32	0 (4.0)			

Schematic diagram

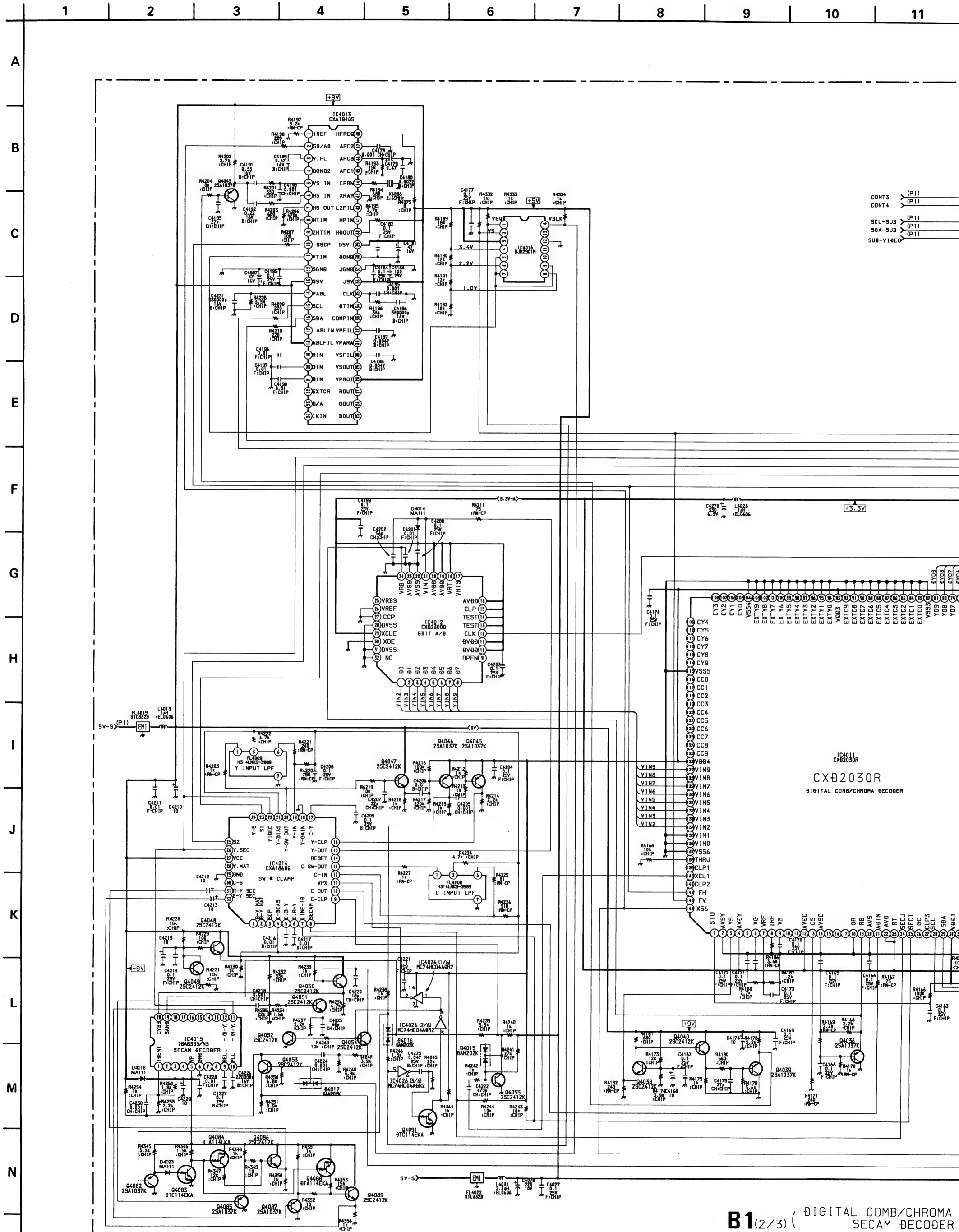
← B1 (1/3) board

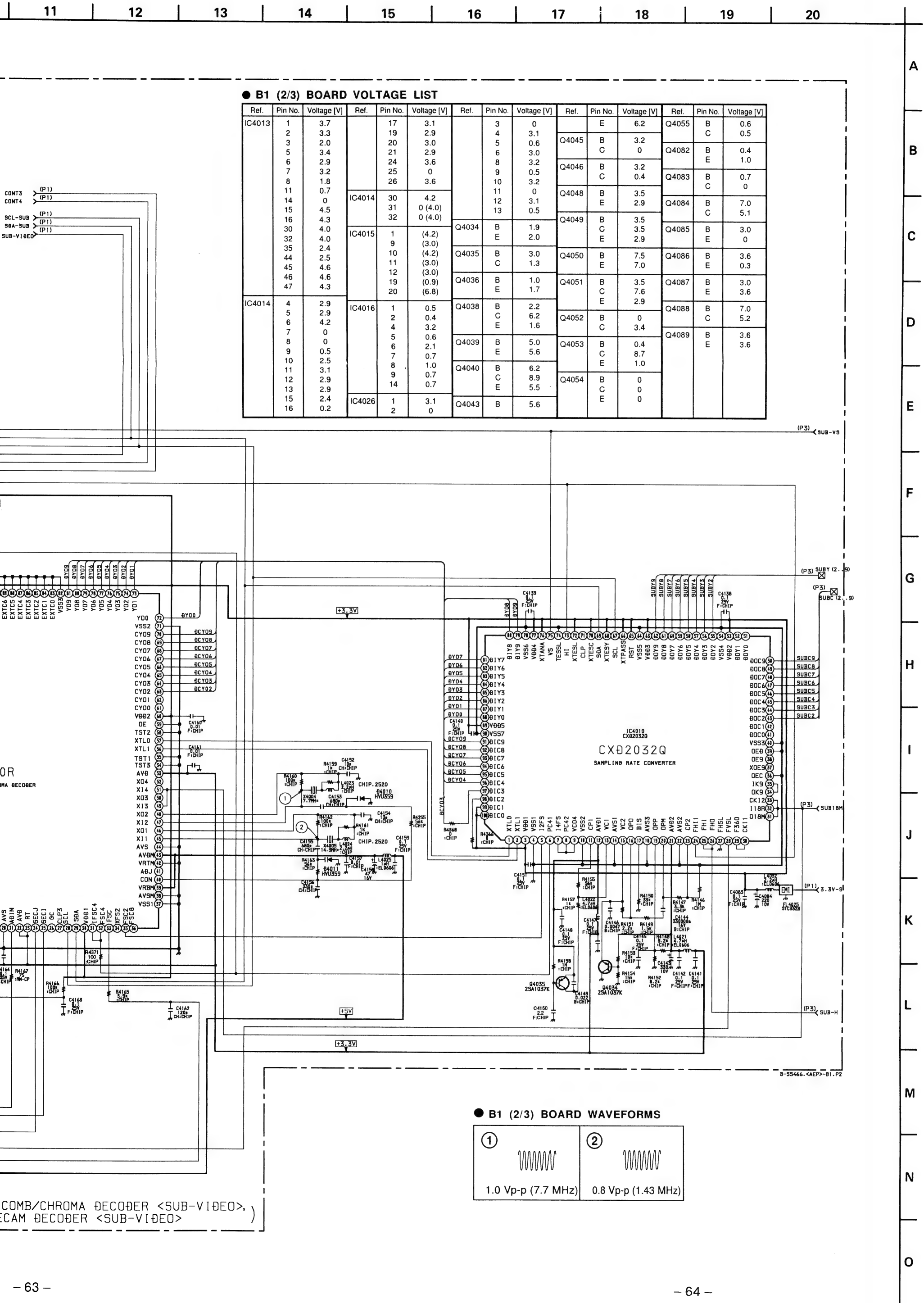
Schematic diagram

B1 (2/3) board →

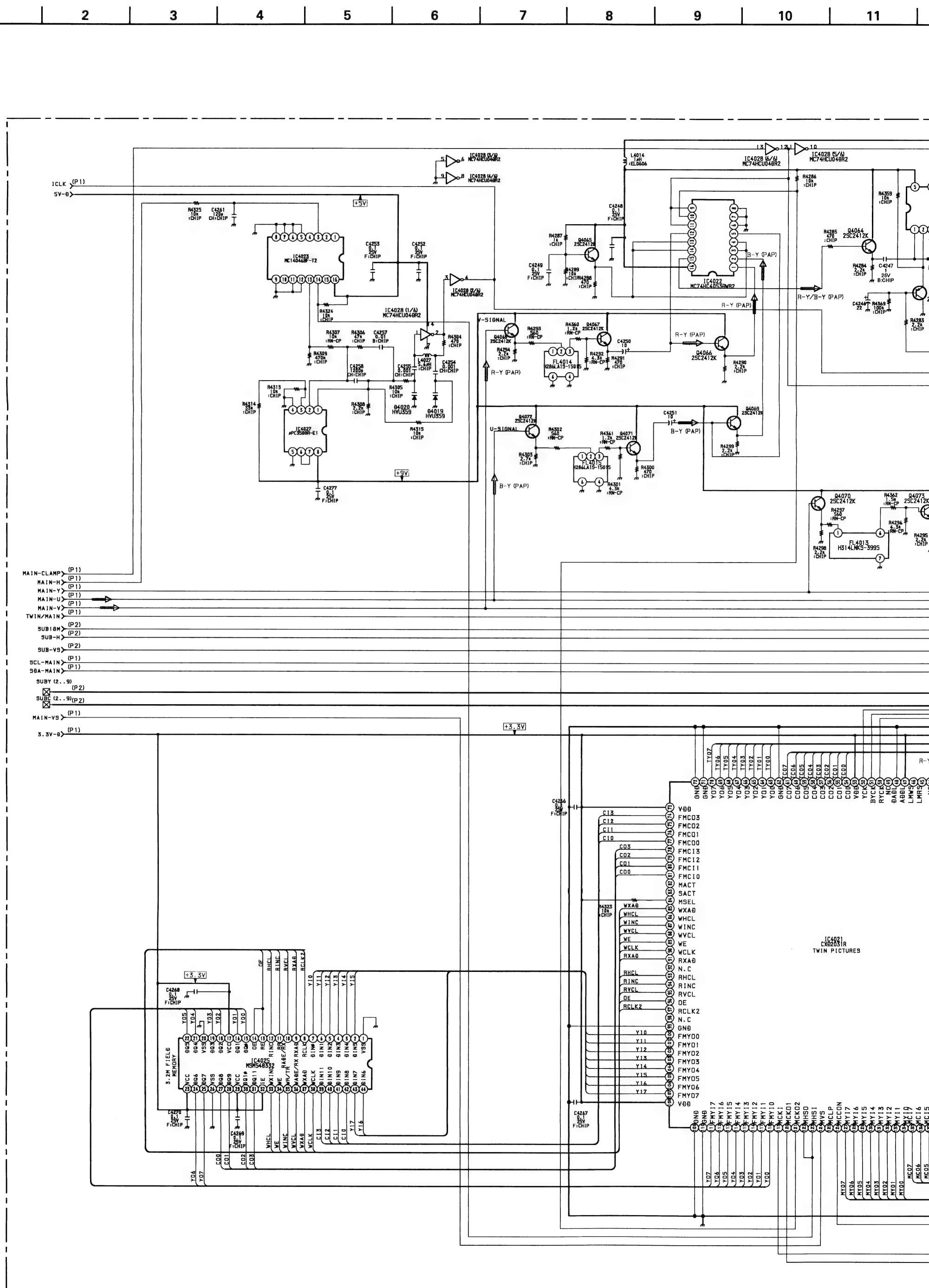


(6) Schematic Diagram of B1 (2/3) Board





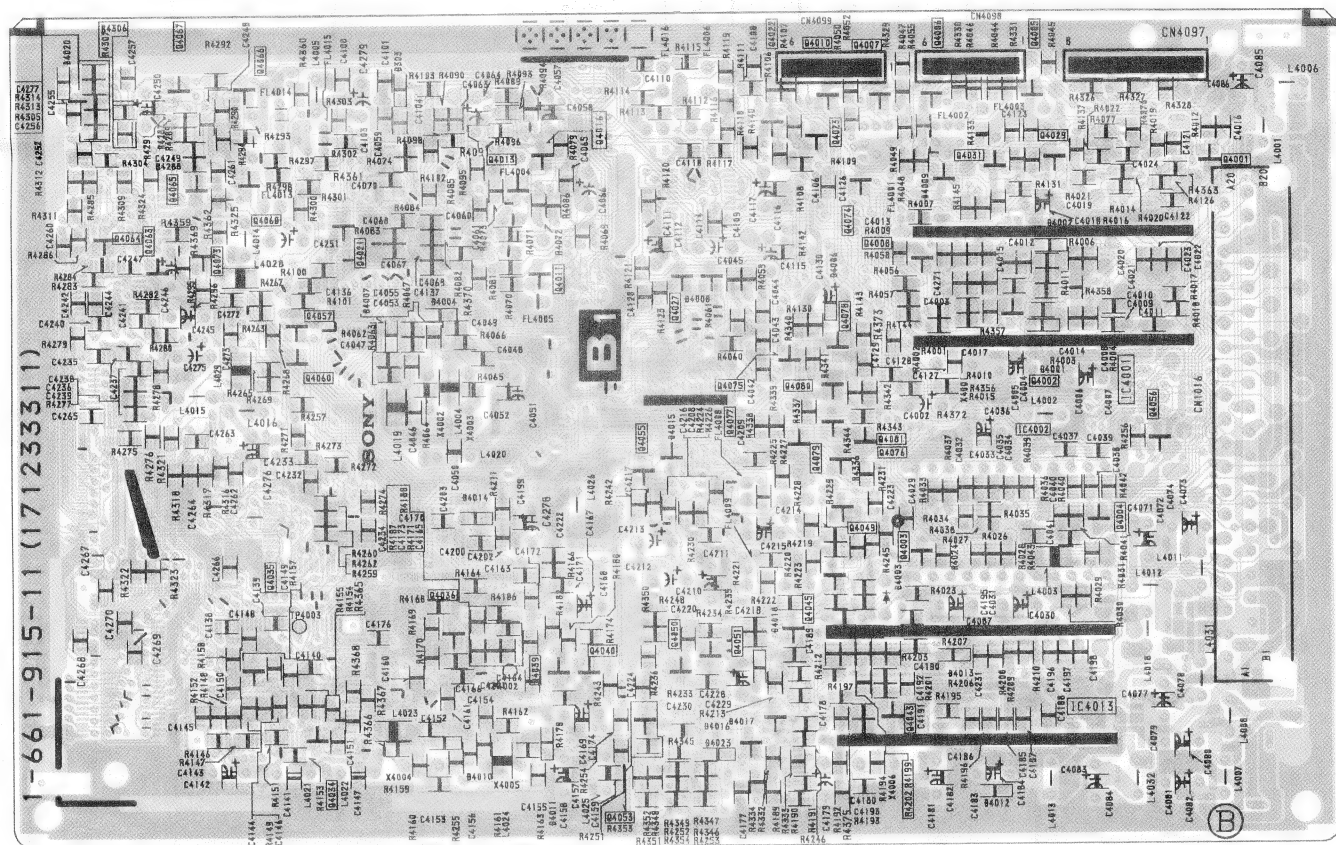
(7) Schematic Diagram of B1 (3/3) Board





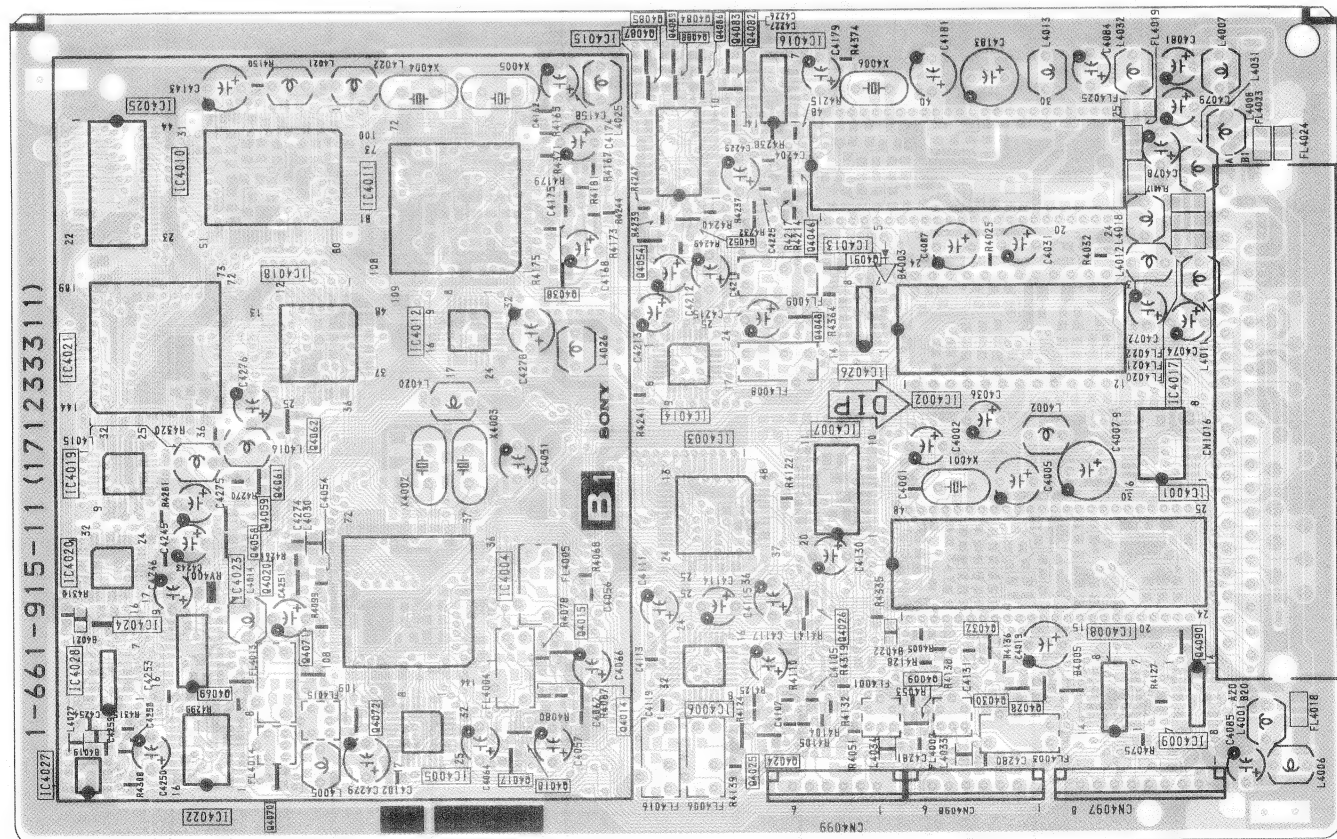


— B1 Board (Conductor Side) —



- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

— B1 Board (Component Side) —

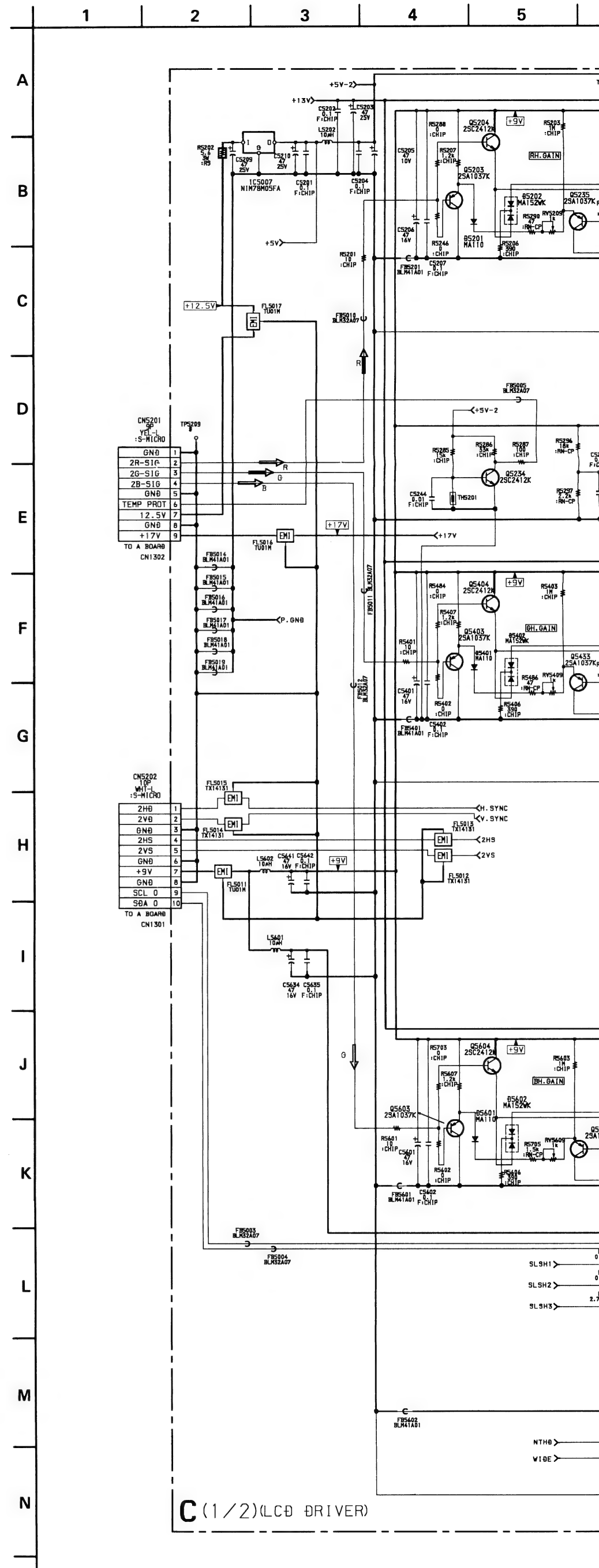


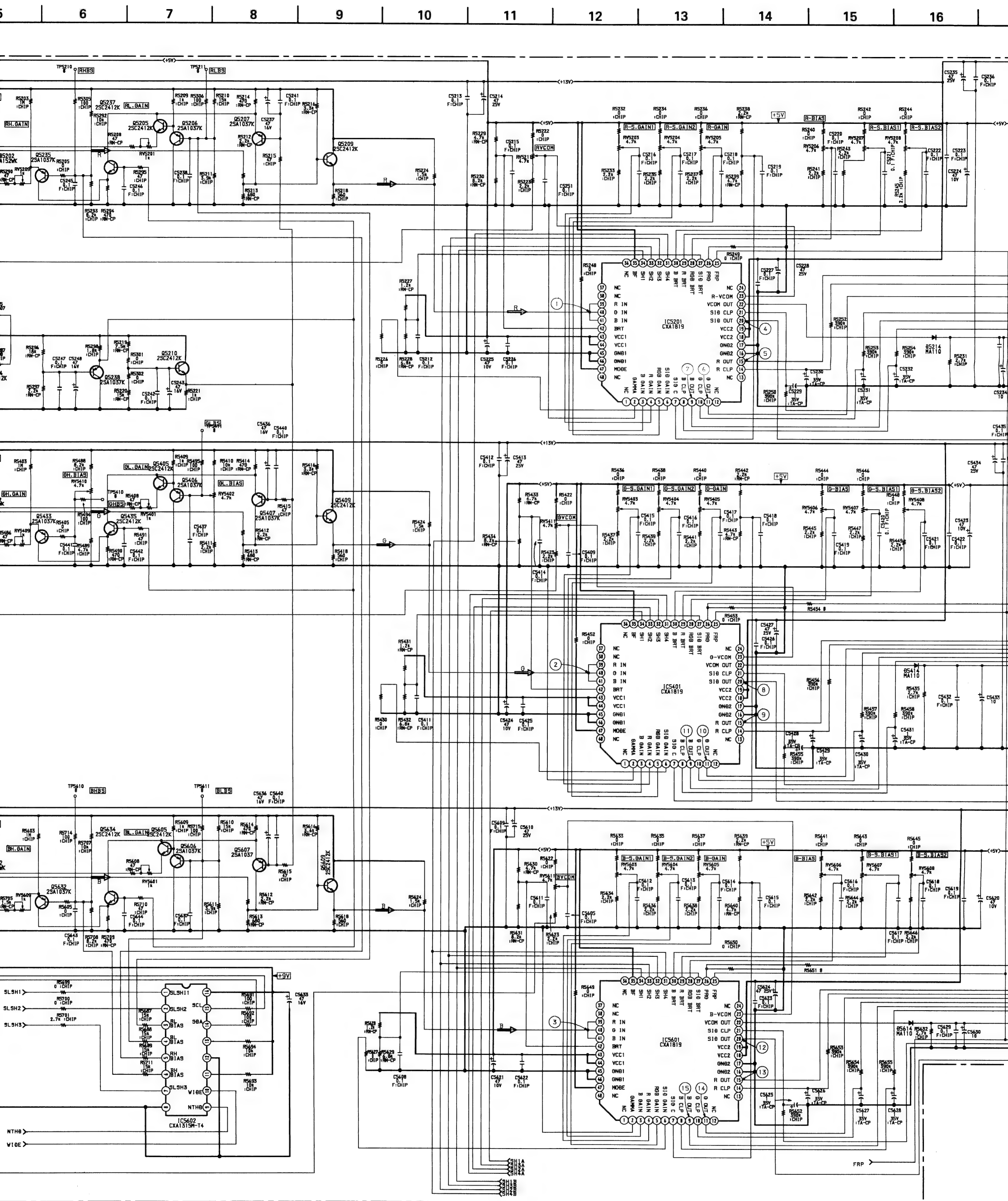
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

(8) Schematic Diagram of C (1/2) Board

● C (1/2) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC5007	1	11.4		14	4.5	Q5419	B	7.1
	0	5.0		15	4.5		E	7.7
IC5201	2	0	Q5203	B	2.2	Q5420	B	7.1
	3	0		E	2.8		E	6.5
	4	3.1	Q5204	B	2.2	Q5421	B	7.7
	5	0		E	1.9		E	7.1
	6	0	Q5205	B	3.0	Q5422	B	6.5
	7	7.0		C	0		E	0
	8	7.0	Q5206	B	2.3	Q5423	B	7.1
	9	7.0		C	0		E	7.7
	10	7.0	Q5207	B	5.2	Q5425	B	7.7
	11	0		C	3.1		E	7.1
	14	7.0	Q5209	B	3.1	Q5426	B	6.5
	15	7.0		C	8.9		E	7.1
	20	7.0	Q5210	B	5.9	Q5427	B	7.1
	21	7.0		E	5.2		E	7.7
	22	7.0	Q5214	B	7.0	Q5428	B	7.0
	23	2.8		E	7.6		E	6.5
	25	2.3	Q5215	B	7.0	Q5429	B	7.7
	26	0		E	6.4		E	7.1
	27	4.2	Q5216	B	7.6	Q5430	B	6.4
	28	0		E	7.0		E	7.1
	29	3.7	Q5217	B	6.4	Q5433	B	3.0
	30	3.2		E	7.0		C	1.0
	31	1.7	Q5218	B	7.0	Q5435	B	1.7
	32	4.6		E	0		C	5.9
	33	1.7	Q5219	B	7.0		E	1.0
	34	1.7		E	0	Q5603	B	2.2
IC5401	39	2.6	Q5220	B	7.6		E	2.8
	40	2.6		E	7.0	Q5604	B	2.1
	41	2.6	Q5221	B	6.2		E	1.9
	42	3.2		E	0	Q5605	B	2.9
	47	4.9	Q5222	B	7.0		C	5.9
				E	7.6		E	2.3
			Q5223	B	0	Q5606	B	2.3
				E	6.4		E	2.9
			Q5224	B	7.6	Q5607	B	5.2
				E	7.0		C	0
			Q5225	B	6.4		E	5.9
				E	7.0	Q5609	B	2.9
			Q5226	B	7.0		E	2.6
				E	0	Q5614	B	6.8
			Q5227	B	7.0		E	7.4
				E	0	Q5615	B	6.8
			Q5228	B	7.6		E	6.2
				E	0	Q5616	B	7.4
IC5601							E	6.8
	2	0	Q5229	B	6.4	Q5617	B	6.2
	3	3.2		E	0		E	6.8
	4	3.2	Q5234	B	0.7	Q5618	B	6.8
	5	3.9		C	0		E	6.8
	6	0		E	0	Q5619	B	6.8
	7	0	Q5235	B	5.0		E	7.4
	8	6.8		C	1.0	Q5620	B	7.4
	9	6.8		E	0		E	6.8
	10	6.6	Q5237	B	1.7	Q5621	B	6.2
	11	6.8		C	5.9		E	6.8
	14	6.8	Q5238	B	1.0	Q5622	B	6.8
	15	6.8		E	1.7		E	6.2
	20	6.8	Q5403	B	2.2	Q5623	B	6.8
	21	6.8		E	2.9		E	6.2
	22	6.6	Q5404	B	2.2	Q5624	B	7.4
	23	2.4		E	0		E	6.8
	25	2.3	Q5405	B	3.1	Q5625	B	6.2
	26	0		C	5.9		E	6.8
	27	4.2	Q5406	B	2.4	Q5626	B	6.8
	28	4.2		E	3.1		E	7.7
	29	3.5	Q5407	B	5.2	Q5627	B	6.8
	30	3.3		C	3.0		E	6.2
	31	1.7	Q5409	B	3.0	Q5628	B	7.4
	32	4.6		E	2.7		E	6.8
	33	1.7	Q5415	B	0	Q5629	B	6.2
	34	1.7		E	7.7		E	6.8
IC5602	39	0	Q5416	B	7.1	Q5632	B	5.0
	40	0		E	6.5		C	1.0
	41	0	Q5418	B	0		E	5.0
	42	3.2		E	7.1	Q5634	B	1.7
	47	5.9					C	5.9
							E	1.0







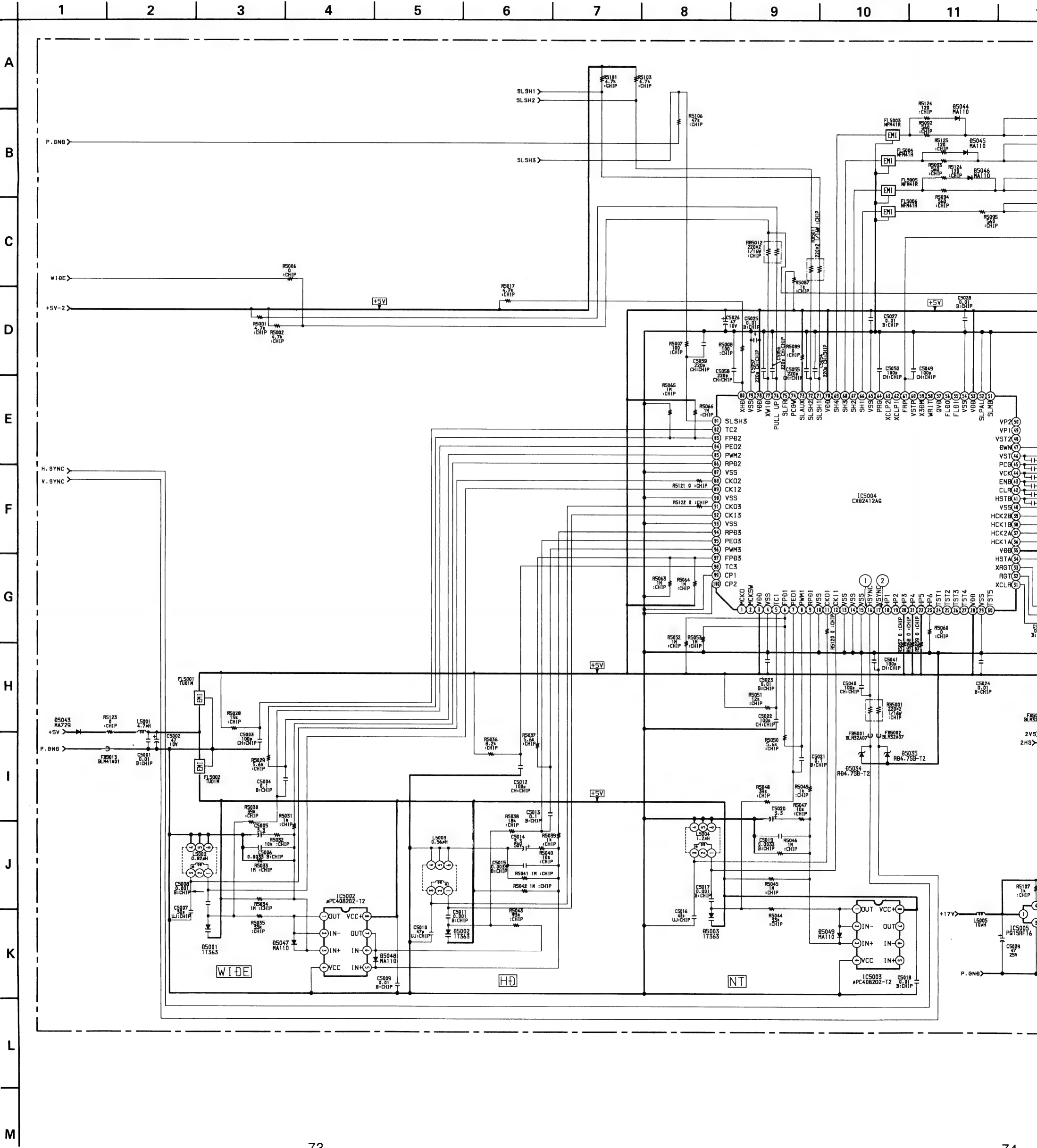




(9) Schematic Diagram of C (2/2) Board

● C (2/2) BOARD VOLTAGE LIST

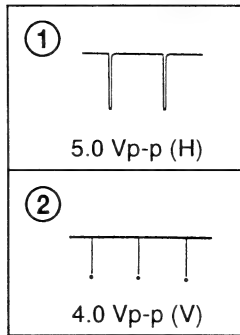
Ref.	Pin No.	Voltage [V]
IC5002	1	2.3
	2	2.3
	3	2.3
	4	0
	5	0
	6	4.6
	7	4.6
IC5003	1	0.9
	2	0.9
	3	1.4
	4	4.6
IC5005	1	16.8
	2	15.5
	4	16.8
IC5006	1	15.5
	2	13.3
	4	1.3
Q5001	B	0.1
	C	4.1
	E	0



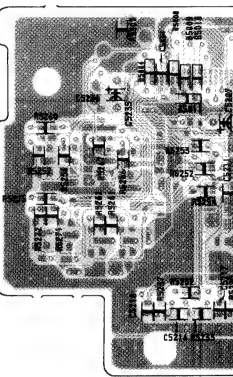
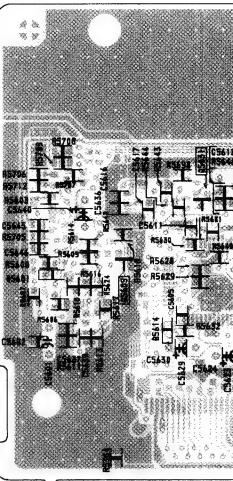
● C (2/2) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]
IC5002	1	2.3
	2	2.3
	3	2.3
	4	0
	5	0
	6	4.6
	7	4.6
IC5003	1	0.9
	2	0.9
	3	1.4
	4	4.6
IC5005	1	16.8
	2	15.5
	4	16.8
IC5006	1	15.5
	2	13.3
	4	1.3
Q5001	B	0.1
	C	4.1
	E	0

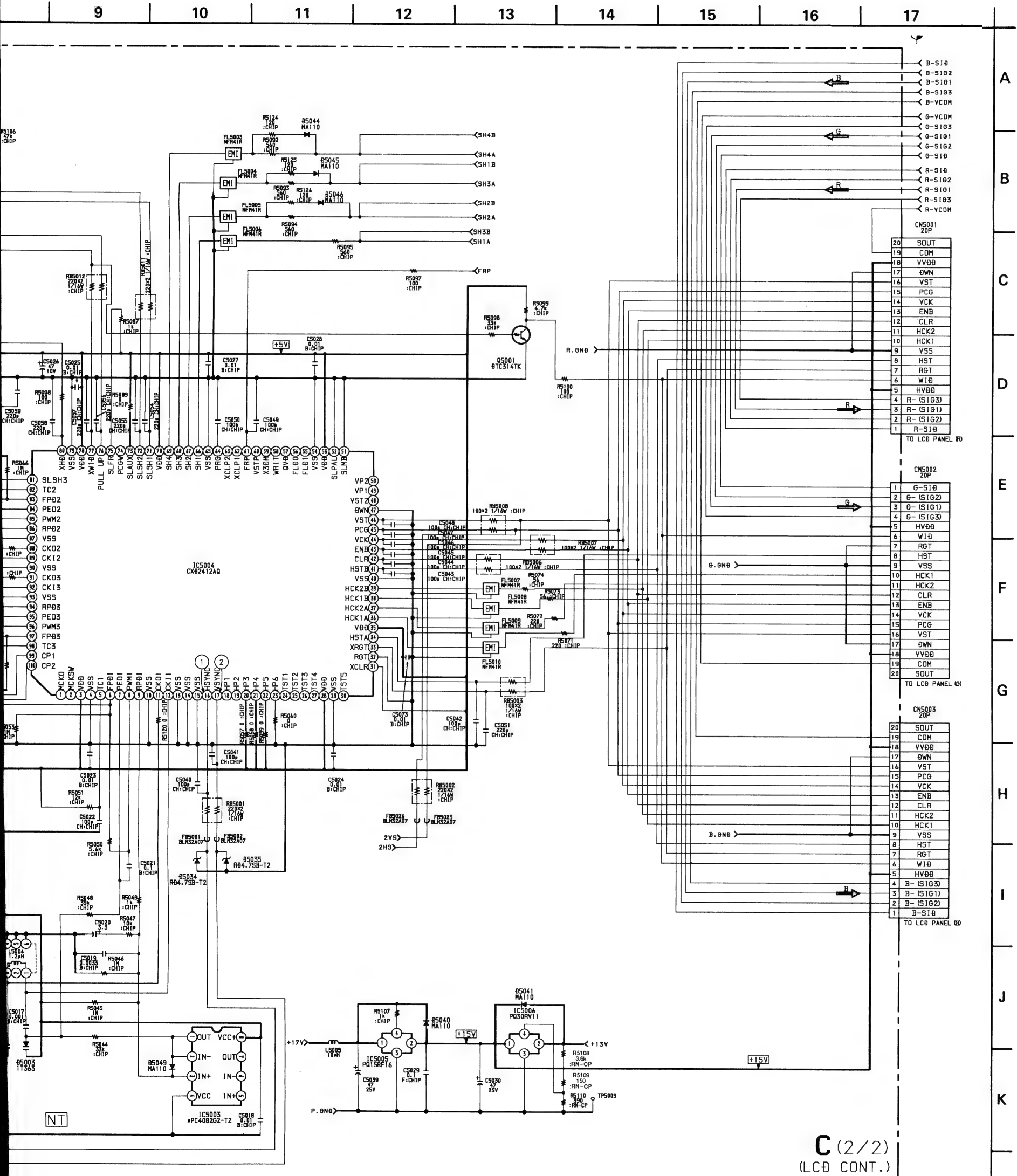
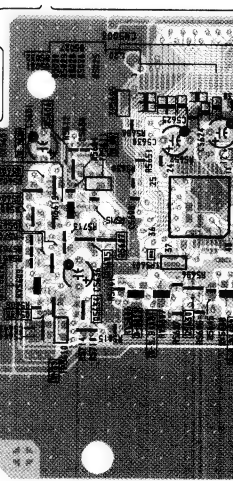
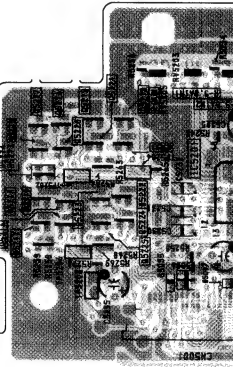
● C (2/2) BOARD WAVEFORMS



— C Board (Conduct



— C Board (Component

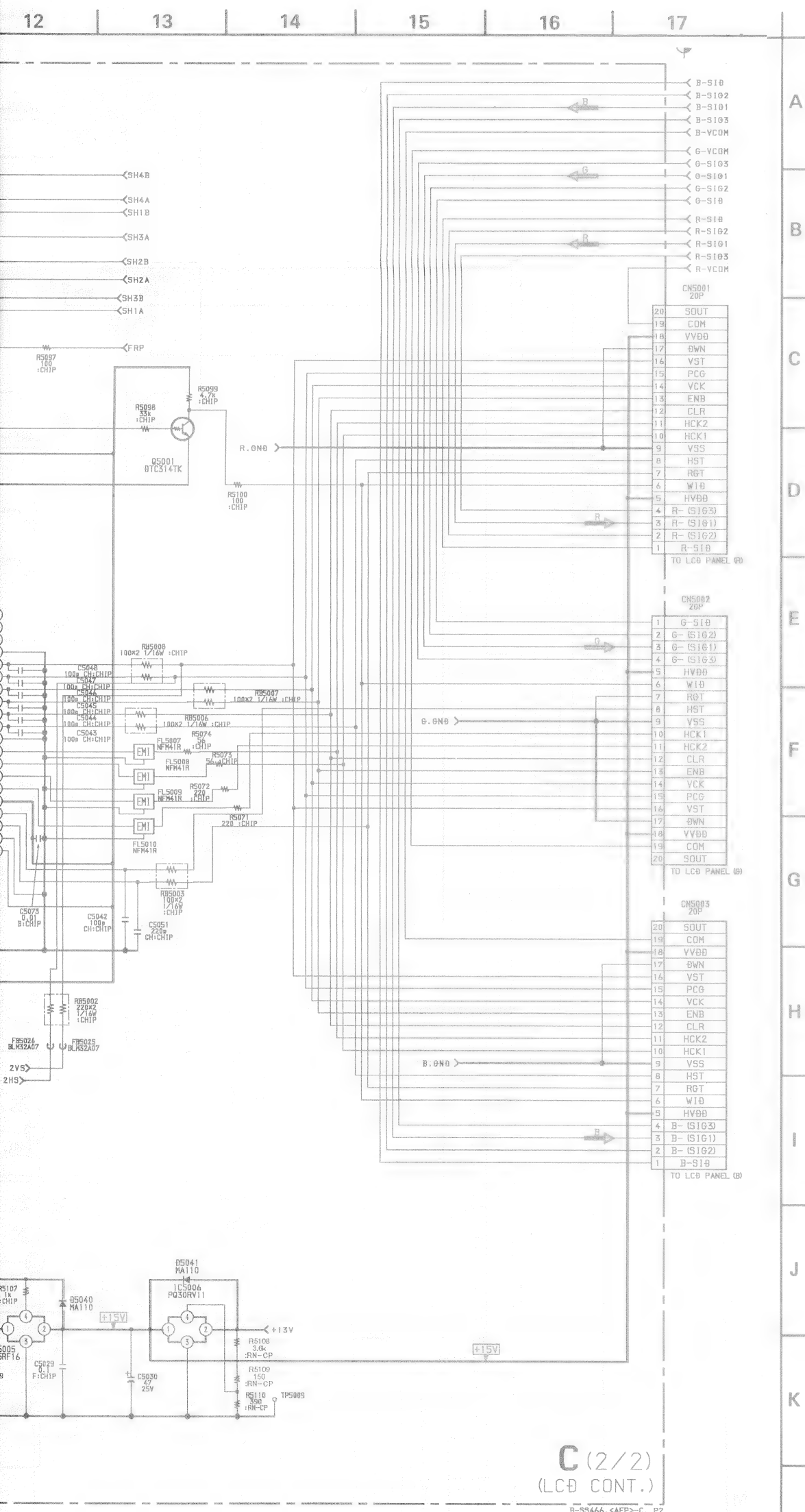
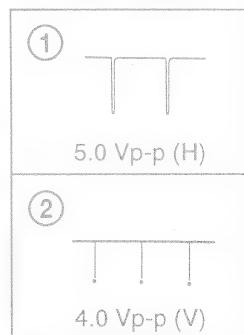


C (2/2)  
(LCB CONT.)

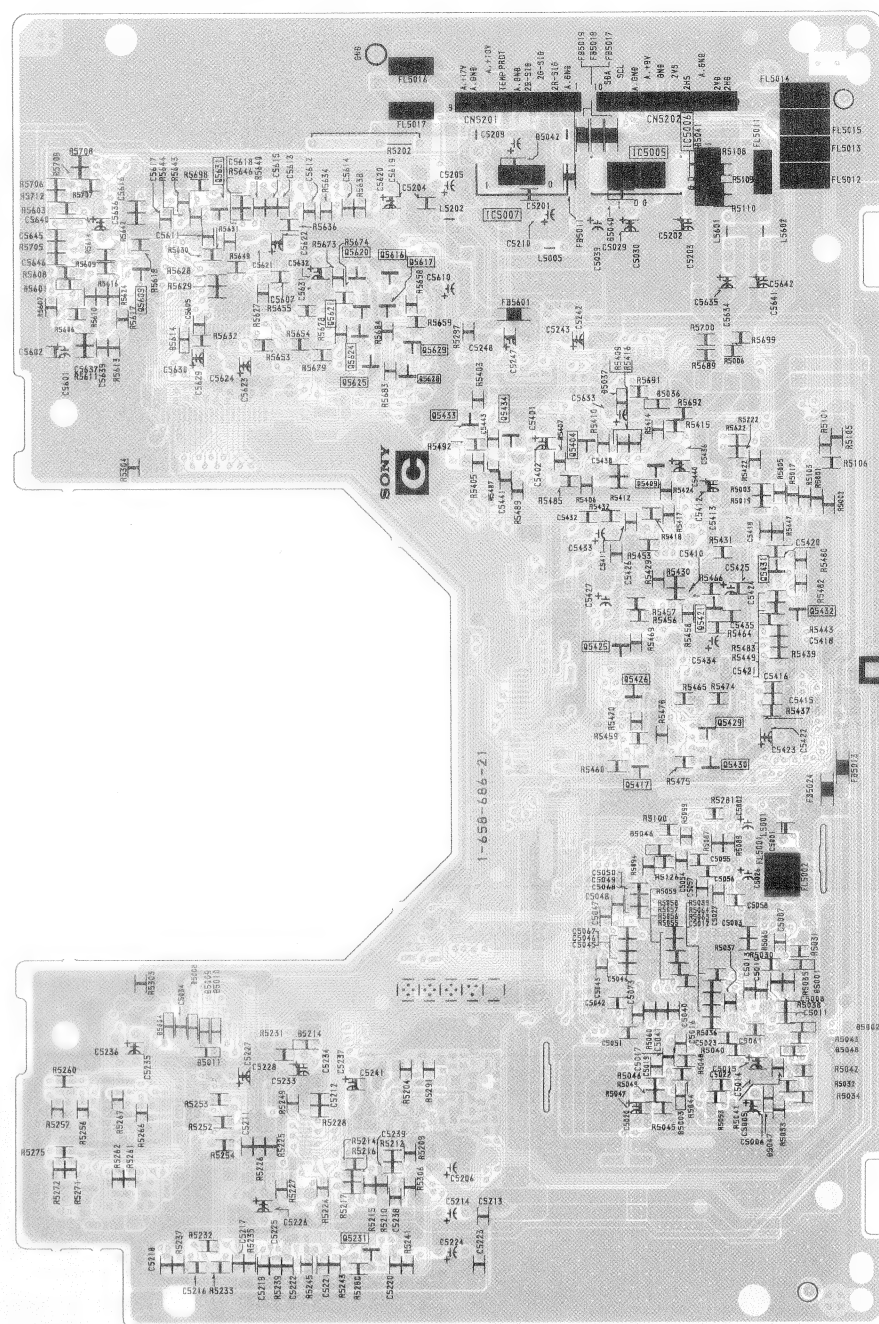
B-35466-CAEP-C-P2

Schematic diagram

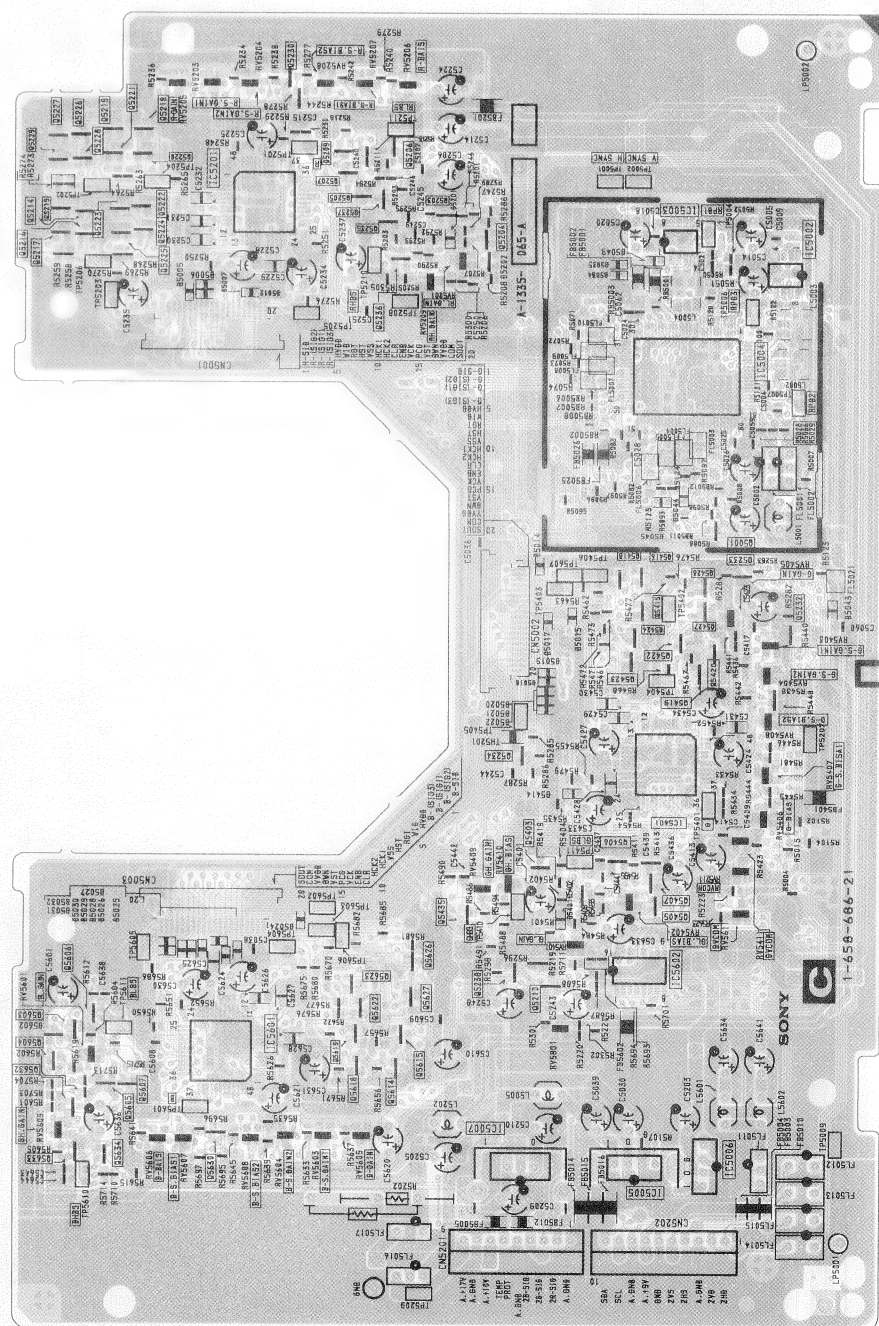
← C (2/2) board



Schematic diagram  
← **C** (2/2) board



— C Board (Component Side) —

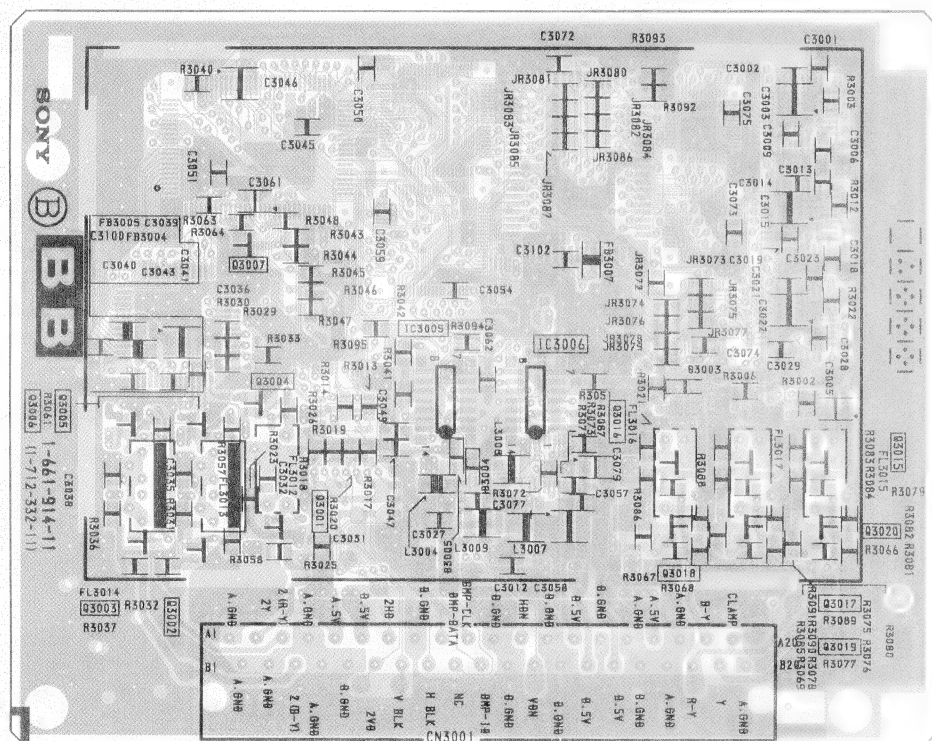


Schematic diagram

**BB** (1/3) board →

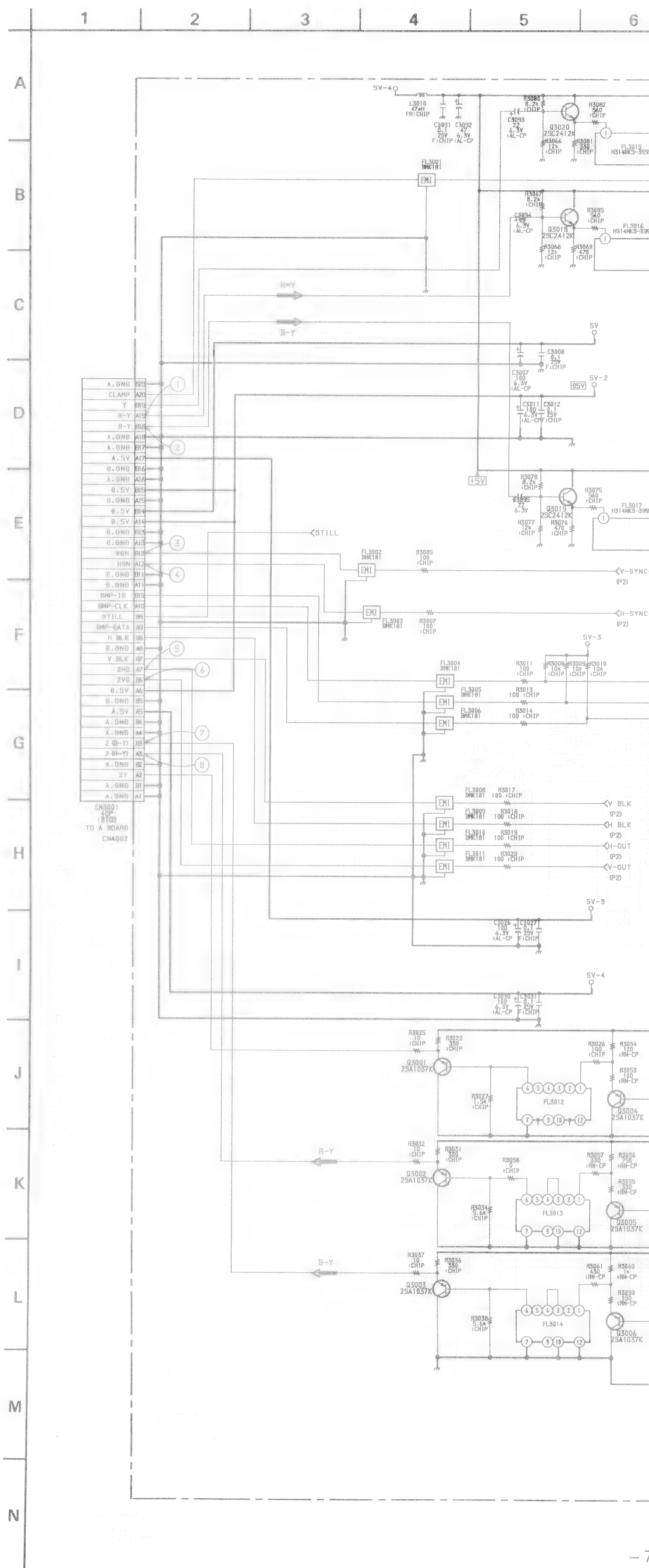


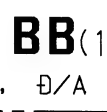
**BB** A/D CONV., D/A CONV.  
"ASPECT RATIO" CONV.  
MEMORY BLOCK

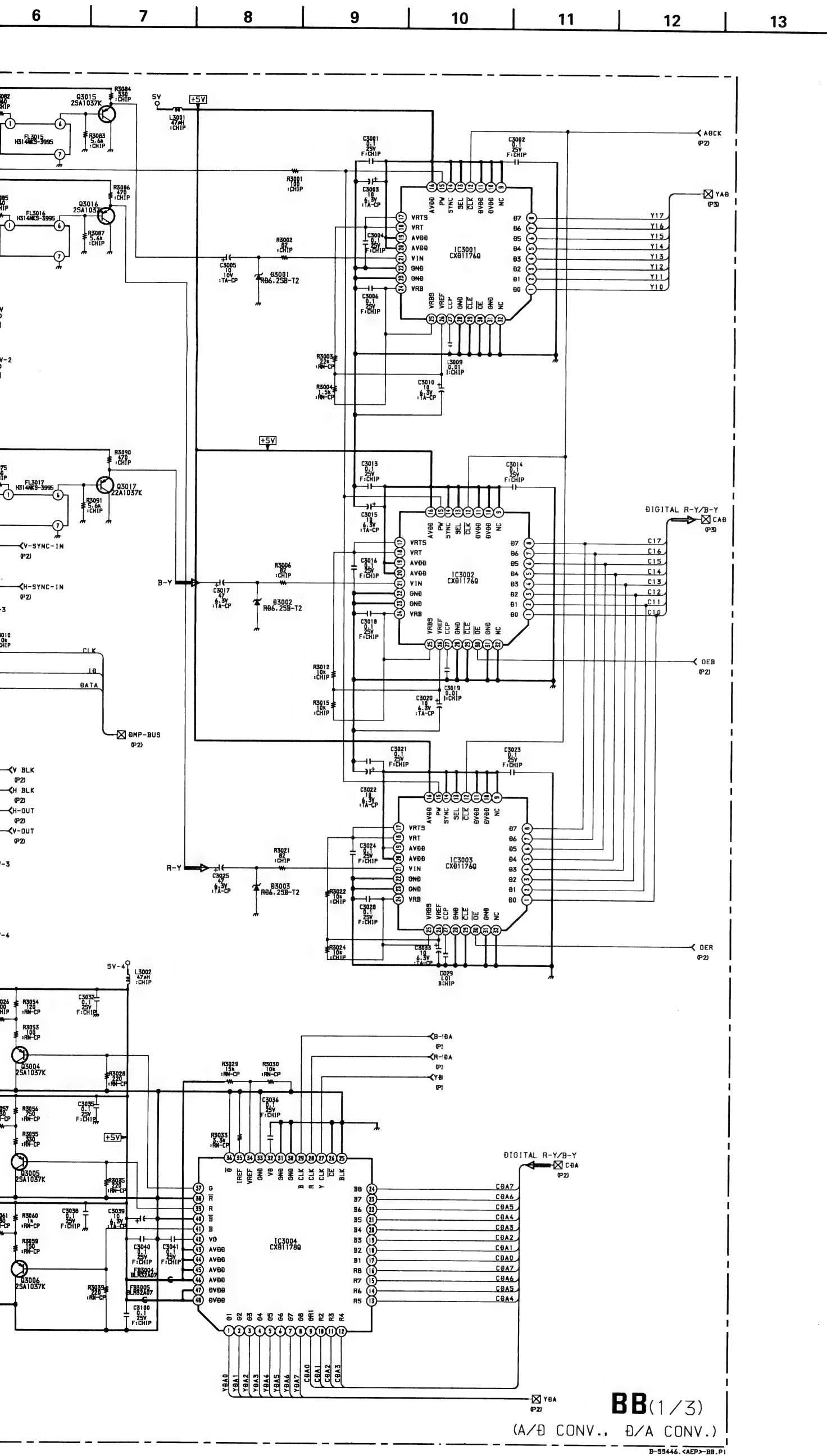




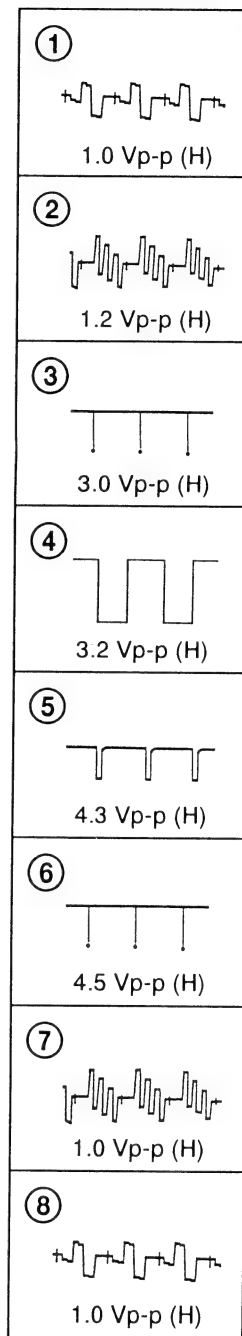
- 76 —







# ● BB (1/3) BOARD WAVEFORMS



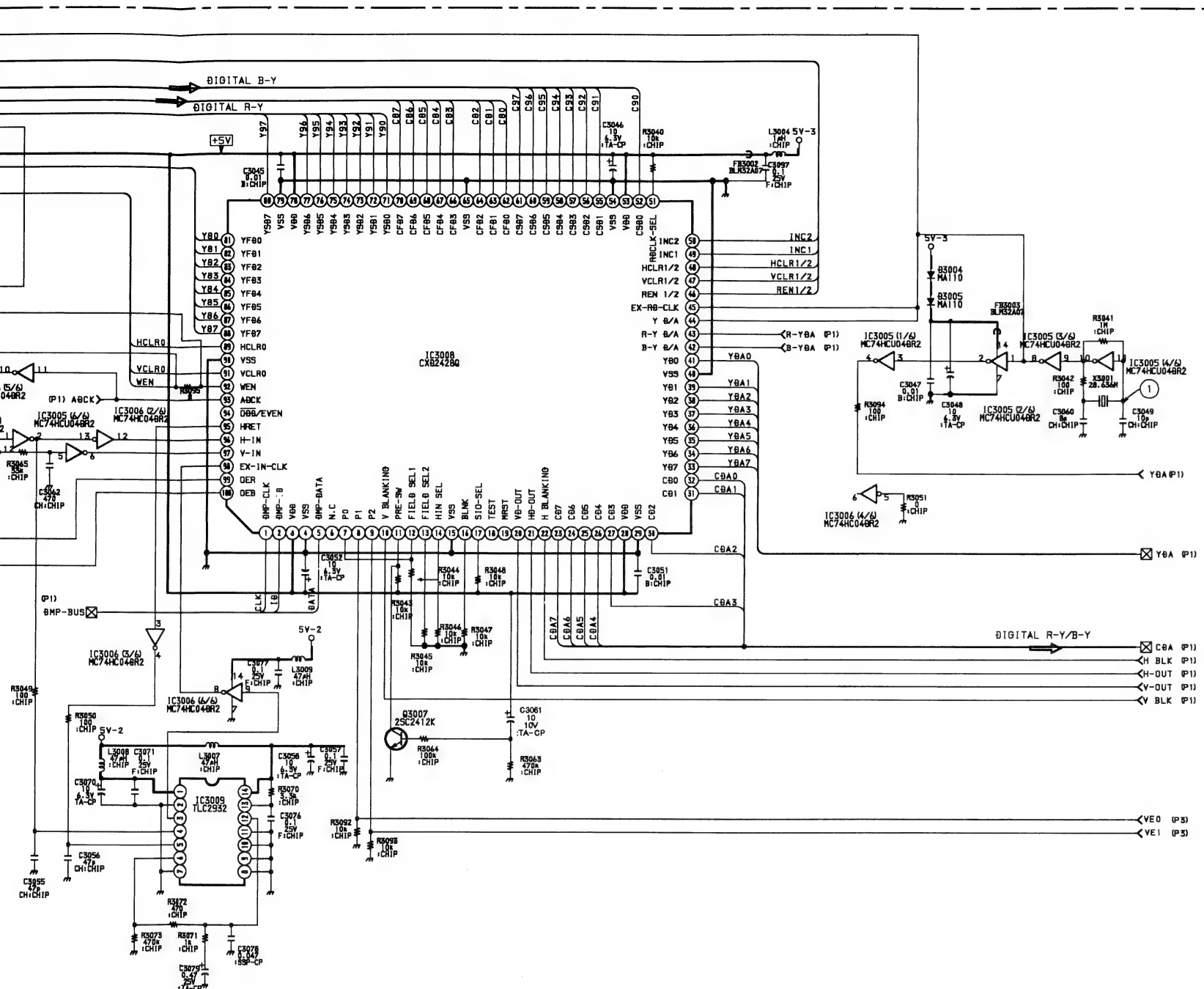
## ● BB (1/3) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC3001	1	2.1	IC3004	1	1.8	Q3001	B	2.6
	2	2.7		2	1.8		E	3.2
	3	3.4		3	2.0	Q3002	B	1.8
	4	3.1		4	1.8		E	2.4
	5	3.2		5	1.3	Q3003	B	1.8
	6	3.2		6	1.6		E	2.5
	7	3.1		7	0	Q3004	B	0.5
	8	1.7		8	0.7		E	1.2
	12	2.3		9	0.5	Q3005	B	1.0
	15	3.2		10	1.7		E	1.7
	17	2.5		11	3.2	Q3006	B	1.0
	18	2.5		12	2.9		E	1.7
	21	1.5		13	3.0	Q3015	B	2.0
	24	0.5		14	3.0		E	1.7
	25	0.5		15	2.9	Q3020	B	2.8
	26	0		16	1.8		E	2.2
	27	2.5		17	0.5			
	28	0		18	1.7			
	29	0		19	3.2			
	30	2.6		20	2.9			
IC3002	1	2.1	IC3003	1	2.1			
	2	2.7						
	3	3.4						
	4	3.1						
	5	3.2						
	6	3.2						
	7	3.1						
	8	1.7						
	12	2.3						
	15	3.2						
	17	2.5						
	18	2.5						
	21	1.5						
	24	0.5						
	25	0.5						
	26	0						
	27	2.5						
	28	0						
	29	0						
	30	2.6						





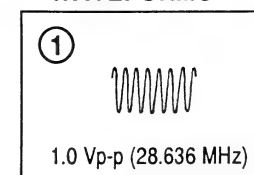
7 8 9 10 11 12 13 14 15 16



**BB (2/3)**  
( 'ASPECT RATIO' CONV. )

B-95446.<AEP>-BB.P2

● **BB (2/3) BOARD**  
**WAVEFORMS**



● **BB (2/3) BOARD VOLTAGE LIST**

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC3005	1	2.2		2	4.9		86	0
	2	2.4		5	0.2		87	0.9
	3	2.4		7	4.8		88	0.5
	4	2.3		8	0		89	0
	5	0.3		9	0		91	0
	6	4.8		10	0.7		92	1.0
	7	0		11	4.9		93	2.3
	8	2.2		12	4.9		95	0
	9	2.2		13	0		96	2.4
	10	2.2		14	0		97	4.8
	11	2.2		16	0		98	2.3
	12	0.3		17	4.3		99	2.6
	13	3.2		20	4.8		100	2.6
	14	4.9		21	4.5	IC3009	3	2.4
IC3006	1	1.6		22	0.9		4	2.5
	2	2.5		23	0		5	2.5
	3	2.5		24	2.9		6	2.2
	4	2.5		25	3.1		12	2.2
	5	0		26	3.1	IC3010	13	0
	6	4.9		27	3.0		2	1.9
	7	0		30	3.2		3	0
	8	2.3		31	2.7		4	1.7
	9	0		32	0.4		5	0.1
	10	2.2		33	0.7		6	2.2
	11	2.2		34	1.2		7	0
	12	2.5		35	1.4		8	0
	13	2.5		36	2.6		9	0
	14	4.9		37	1.6		11	0
IC3007	2	1.9		38	2.8		12	0
	3	0		39	0		13	0
	4	1.7		41	2.0		14	0
	5	0.1		42	2.5		16	0
	6	2.2		43	2.4		17	0
	7	0		44	2.2		20	0
	8	0		45	2.2		32	0
	9	0		46	0		33	1.0
	11	0		47	0		35	0
	33	1.0		48	0		37	0
	35	0		49	0		38	1.6
	37	0		50	0		39	0
	38	1.6		51	4.9		43	3.4
	39	0		52	0		44	0
	43	3.4		55	0		45	0
	44	0		56	2.0		46	0
	45	0		57	1.9		47	0
	46	0		58	0		48	0
	47	0		59	1.9		49	0
	48	0		60	1.8		50	0
	49	0		61	1.0		52	0
	50	0		62	0		53	0
	52	0		63	0.6		54	1.3
	53	0		64	2.1		55	2.2
	54	1.3		66	1.8		56	1.1
	55	2.2		67	1.9		57	1.7
	56	1.1		68	1.9		58	0
	57	1.7		69	1.8		59	1.8
	58	0		70	1.0		60	0.1
	59	1.8		71	1.4		64	2.1
	60	0.1		72	1.4		65	2.3
	64	2.1		73	1.7		67	1.6
	65	2.3		74	1.5		69	0
	67	1.6		75	1.3		74	1.3
	69	0		76	1.0		75	1.7
	74	1.3		77	1.0		77	1.9
	75	1.7		80	0.6		78	1.8
	77	1.9		81	1.3	Q3007	B	0
	78	1.8		82	1.4		C	4.9
IC3008	1	4.9		83	1.7			
				84	1.5			
				85	1.3			

Schematic diagram

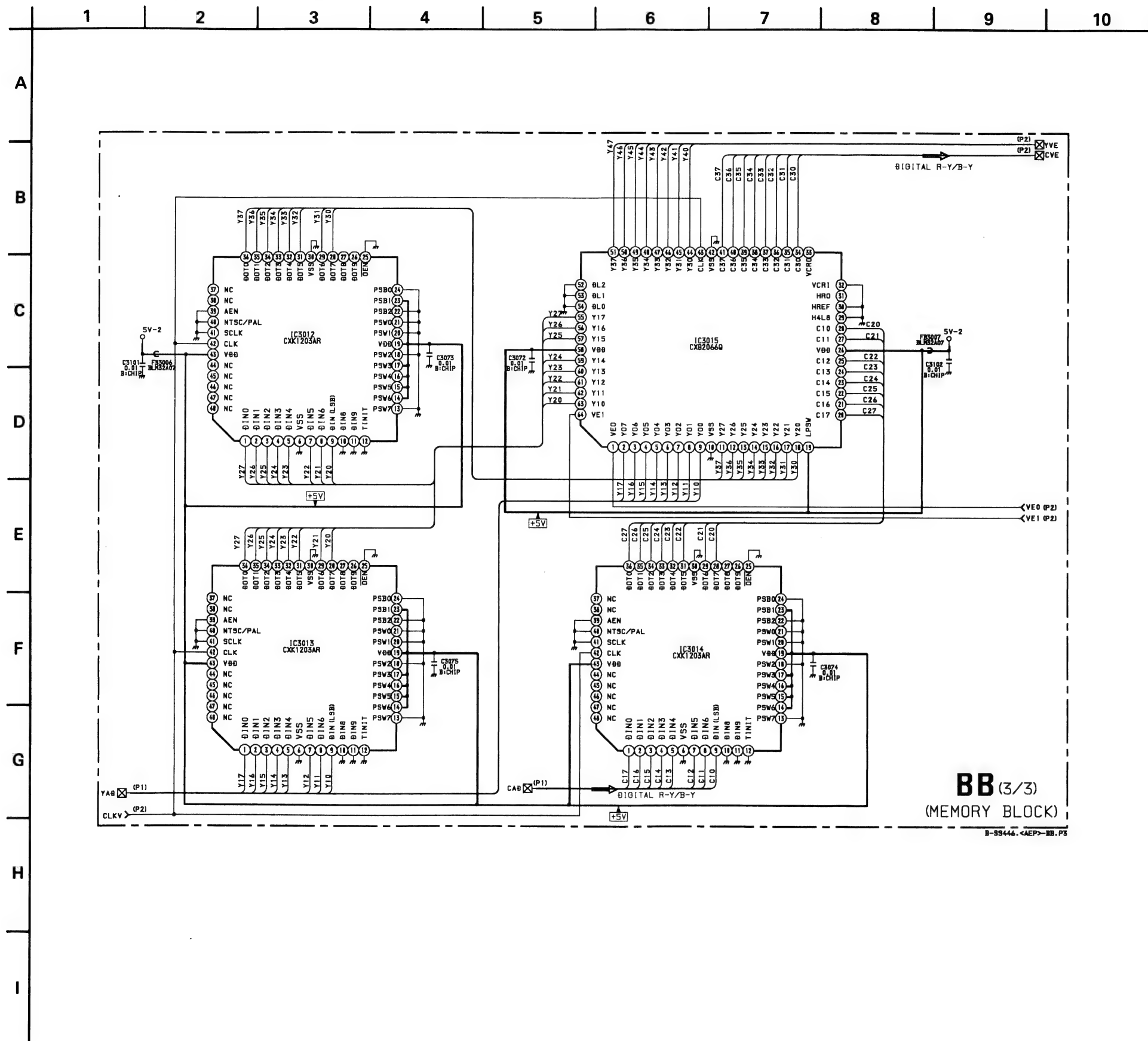
← **BB** (2/3) board

Schematic diagram

**BB** (3/3) board →



(12) Schematic Diagram of BB (3/3) Board

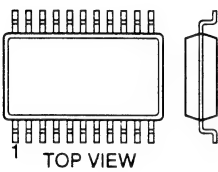


● BB (3/3) BOARD VOLTAGE LIST

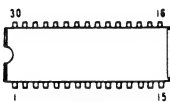
Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC3012	1	1.7	IC3014	1	1.7		21	3.1
	2	3.0		2	3.0		22	3.3
	3	3.2		3	3.2		23	*
	4	3.2		4	3.2		24	3.2
	5	3.1		5	3.1		25	3.6
	7	3.0		7	3.6		27	3.0
	8	2.8		8	2.8		28	2.4
	9	2.9		9	2.9		34	2.5
	28	2.4		28	2.4		35	2.9
	29	3.0		29	3.0		36	3.6
	31	3.6		31	3.6		37	3.1
	32	3.2		32	3.2		38	3.3
IC3013	1	1.7	IC3015	1	0		39	3.3
	2	3.0		2	0.8		40	3.0
	3	3.2		3	1.5		41	1.6
	4	3.2		4	1.6		43	2.3
	5	3.1		5	1.5		44	2.1
	7	3.6		6	2.3		45	2.2
	8	2.8		7	2.4		46	2.4
	9	2.9		8	2.2		47	2.2
	28	2.4		9	2.0		48	1.5
	29	3.0		11	0.8		49	1.6
	31	3.6		12	1.4		50	1.4
	32	3.2		13	1.6		51	0.8
	33	3.3		14	1.5		55	0.8
	34	3.3		25	2.3		56	0
	35	3.1		16	2.4		57	1.6
	36	1.6		17	2.3		59	*
	42	2.3		20	1.6		60	2.3
							61	2.5
							62	*
							63	2.1
							64	0

#### 4-5. SEMICONDUCTORS

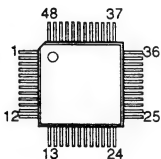
BA4558F  
BA7046F  
CXA1315M  
CXA1875AM-T4  
CXD1176Q  
CXD1176Q-T4  
CXK1203AR  
LM2901M  
MB3793-42PNF  
MC14046BF  
MC14046BF-T2  
MC74F02M-T2  
MC74HCU04DR2  
MC74HC04ADR2  
MC74HC4053DNR2  
NJM2233BM  
NJM2284M  
NJM2901M-T2  
TC7W32FU  
TC7W74FU  
TLC2932IPW  
 $\mu$ PC358GR-E1  
 $\mu$ PC4082G2



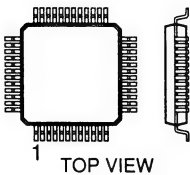
CXA1815S



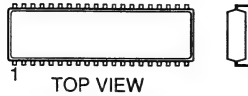
CXA1819Q  
CXD1178Q  
CXD1178Q-T6  
CXD2309Q-T6



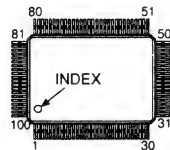
CXA1839Q-T6  
CXA1860Q-T4  
CXA2011Q  
CXD2030R  
CXD2031R-65846GJ015  
CXD2031R-65846GJ0153EN  
CXD2300Q-T4  
CXK48324R  
CXK48324R-1  
TDA6812-2MGEG



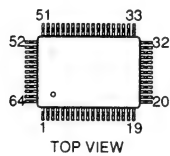
CXA1840S  
CXA1855S  
SDA9086-5  
ST24C16CB1  
ST24C16FB6  
TDA7317  
TDA8443B  
TDA9820  
TEA2114



CXD2412AQ  
CXD2032Q-TL  
CXD2428Q

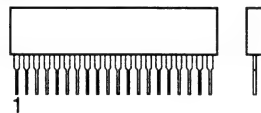


CXD2066Q  
SAA7283GP



MB81C4256A-70PSZG

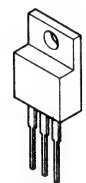
MARKING SIDE VIEW



MC78L05ACPRP  
NJM78L05A



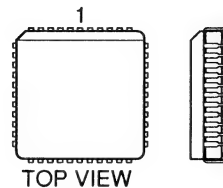
MC7809CT  
NJM78M05FA  
NJM78M09FA



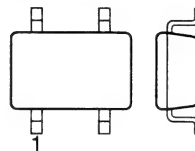
PQ05RF21  
PQ09RA1  
PQ09RF11  
PQ15RF16  
PQ30RV11



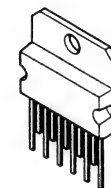
SDA30C164-GEG  
SDA5273P-C26-GEG



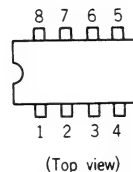
TC4S66F



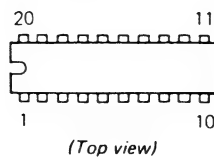
TDA2009A



TDA2822M  
TOP210PF1



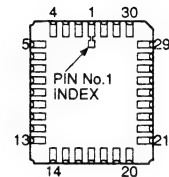
TDA8395T/N3



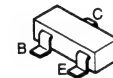
TL431CLP  
TL431CLP-Z20



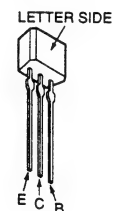
TMS27PC020-15FMLLE101



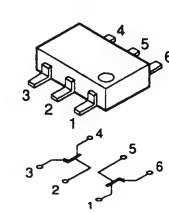
DTA114EKA-T146  
DTA124EKA-T146  
DTC114EK  
DTC114EKA-T146  
DTC124EKA-T146  
DTC144EKA-T146  
DTC314TKH04  
DTC314TK-T-146  
2SA1037K-T-146-R  
2SA1162-G  
2SC-1623-L5L6  
2SC2412K-QR  
2SC2412K-T-146-QR



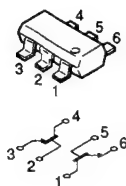
DTC114ESA-TP  
JC501-Q-AMMO  
JC501TP-Q  
2SA933AS-QRT  
2SA933AS-RT  
2SC2785-HFE



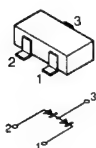
XN4401  
XN4401-TX



**XN4601**  
**XN4601-TX**

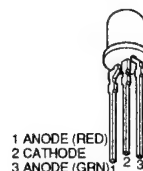


**DA204K**  
**DA204K-T-146**



**HVU359TRF**  
**MA111**  
**MA111-TX**  
**RD4.7SB**  
**RD4.7SB-T2**  
**RD6.2SB**  
**RD6.2SB-T2**  
**1SV214**  
**1SV214-TPH3**  
**1T363**  
**1T363-04-T8A**

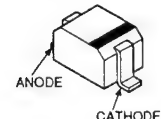
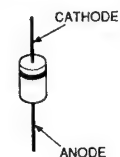
**SPR-54MVW**



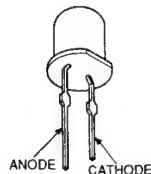
**2SA1282ATP-EF**



**D1NL20-TR**  
**EGP10D**  
**EGP10DPKG23**  
**S2LA20F**  
**1SS133T-77**



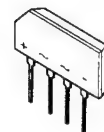
**TLR124**



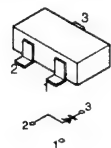
**2SC4833-M1**



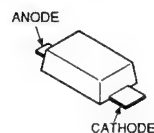
**D2SBA60F**



**MA3030-H (TX)**



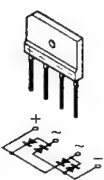
**MA729**  
**MA729-TX**



**2SD2396H**

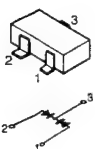


**D4SB60L**  
**D4SB60L-F**  
**D10SBS4**  
**D10SBS4F**  
**RBA-406B**

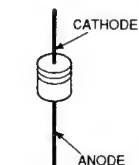
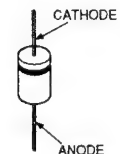


**MTZJ-T-77-13B**  
**MTZJ-T-77-15B**  
**MTZJ-T-77-33C**  
**MTZJ-T-77-5.6B**  
**MTZJ-13B**  
**MTZJ-33C**  
**RD15ES-B2**  
**RD30ESB3**  
**RD5.6ESB2**  
**1SS119-25**  
**1SS119-25TD**

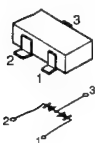
**DAN202K**  
**DAN202K-T-146**  
**MA152WK-TX**  
**STZ6.8T**  
**1SS184**



**EL1Z**  
**MTZJ-T-77-9.1A**  
**RGP10GPKG23**



**DAP202K**  
**DAP202K-T-146**



**UF4005PKG23**



KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838

## SECTION 5 EXPLODED VIEWS

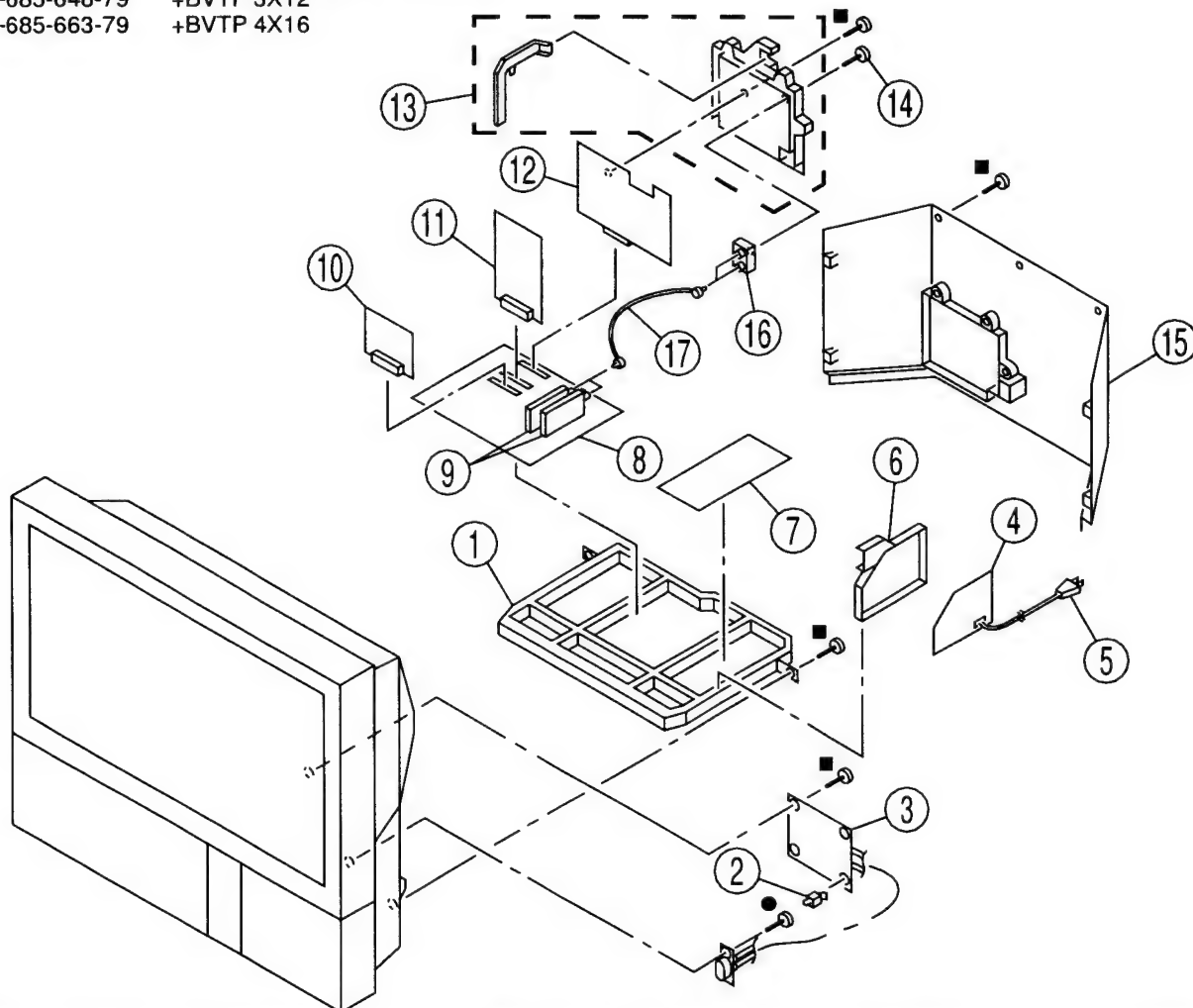
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

### 5-1. CHASSIS [KL-37W1/37W1K/37W1U]

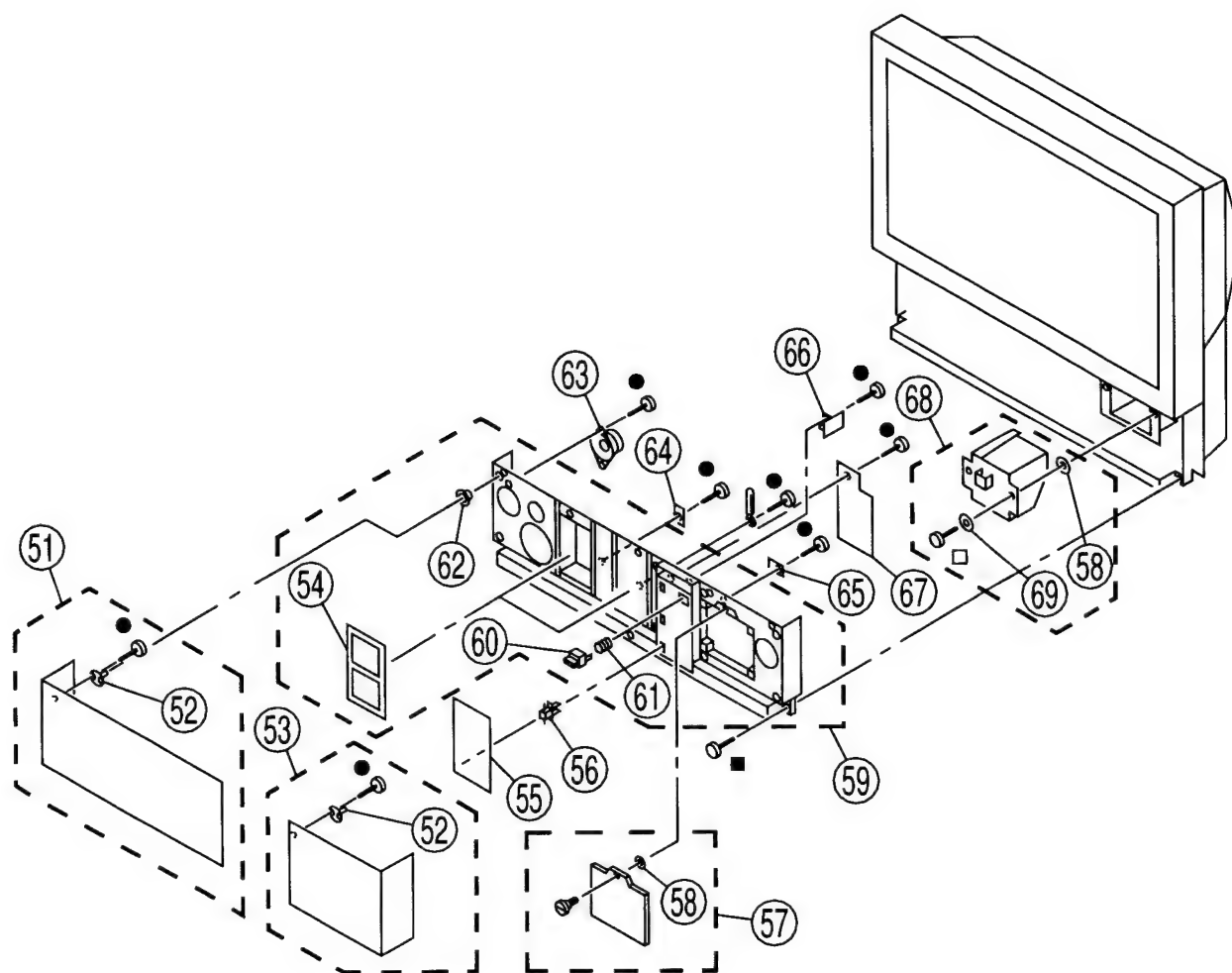
- 7-685-648-79 +BVTP 3X12
- 7-685-663-79 +BVTP 4X16



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*4-054-721-01	BRACKET, MAIN		10	*A-1135-870-A	BB BOARD, COMPLETE	
2	*3-703-141-00	HOLDER, PCB		11	*A-1135-884-A	B1 BOARD, COMPLETE	
3	$\Delta$ 1-473-545-11	POWER BLOCK		12	*A-1388-189-A	J BOARD, COMPLETE	
4	*A-1241-255-A	F2 BOARD, COMPLETE		13	4-054-727-01	TERMINAL BOARD	
5	$\Delta$ 1-765-286-11	CORD, POWER 10A/250V	(KL-37W1/W1K)	14	4-379-611-01	SCREW (M3X8), +B	
5	$\Delta$ 1-776-860-11	POWER CORD, FILTER (KL-37W1U)		15	X-4033-267-2	COVER ASSY, REAR	
6	*4-054-722-01	BRACKET, F2		16	1-251-372-21	BOOSTER, PF	
7	*A-1311-494-A	G BOARD, COMPLETE		17	*1-777-539-11	CABLE, P-P	
8	*A-1297-874-A	A BOARD, COMPLETE					
9	$\Delta$ 1-693-340-21	TUNER/VIF					

## 5-2. FRONT COVER [KL-37W1/37W1K/37W1U]


- 7-685-648-79 +BVTP 3X12  
■ 7-685-663-79 +BVTP 4X16  
□ 7-683-421-04 HEXAGON SOCKET BOLT 4 X 12

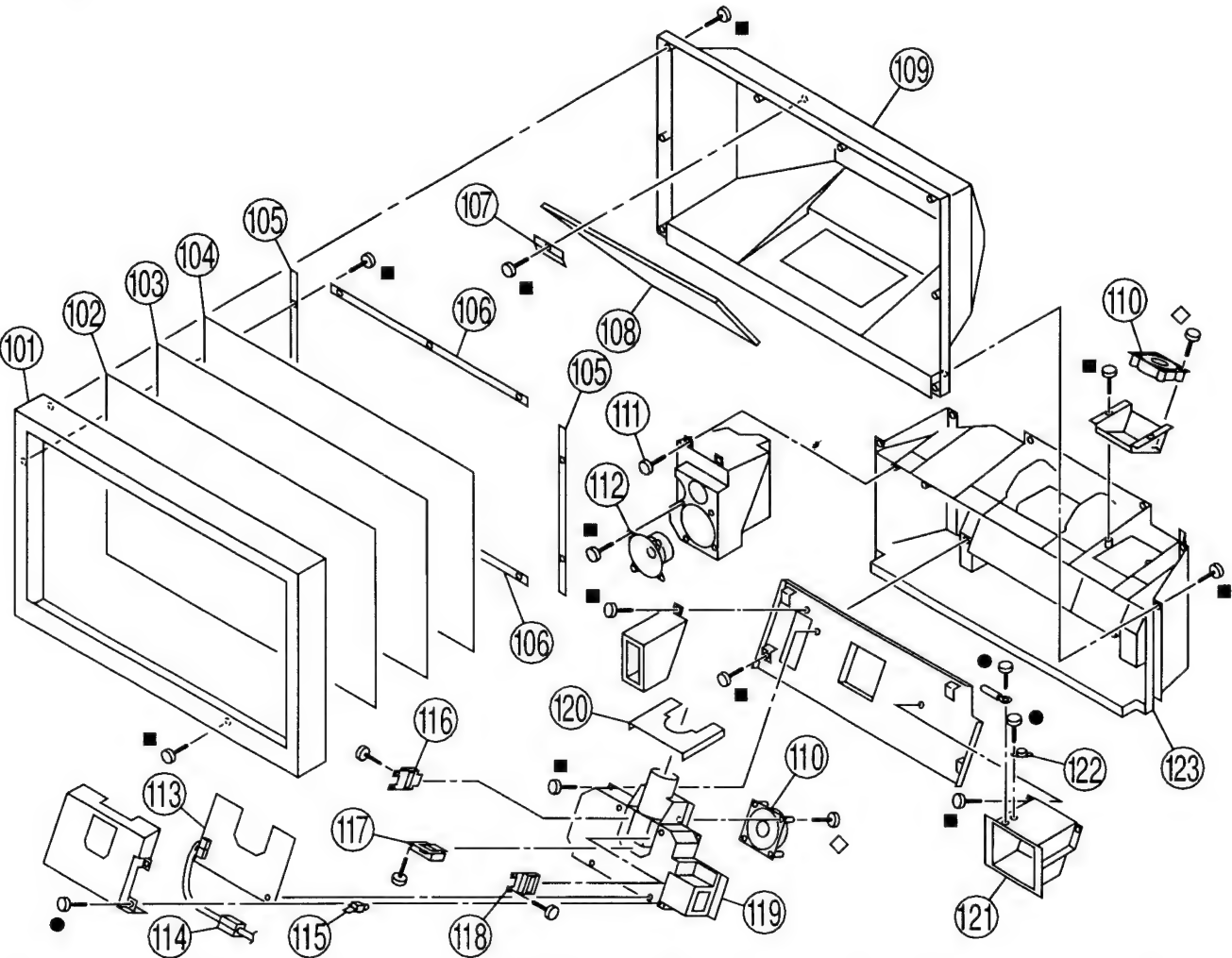




REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4033-823-1	PANEL (L) ASSY, FRONT	52	60	4-051-285-01	BUTTON, POWER	
52	4-054-709-01	STRIKE	52	61	4-202-964-01	SPRING	
53	X-4033-821-1	PANEL (R) ASSY, FRONT	52	62	*4-838-438-00	LATCH	
54	4-051-312-01	FILTER		63	1-505-207-11	SPEAKER (5.7CM)	
55	X-4033-819-1	DOOR ASSY (KL-37W1/W1U)		64	*A-1390-622-A	TB BOARD, COMPLETE	
55	X-4033-819-2	DOOR ASSY (KL-37W1K)		65	*A-1390-621-A	TA BOARD, COMPLETE	
56	3-703-035-11	SHAFT, LID		66	*A-1241-256-A	F1 BOARD, COMPLETE	
57	X-4033-818-1	DOOR ASSY, LAMP	58	67	*A-1372-259-A	H BOARD, COMPLETE	
58	*3-650-537-00	WASHER		68	A-1501-092-A	LAMP BLOCK ASSY	58, 59
59	X-4033-825-1	COVER ASSY, FRONT	54, 60-62	69	3-901-261-01	WASHER	

5-3. SCREEN MIRROR BLOCK AND OPTICS UNIT  
[KL-37W1/37W1K/37W1U]

- 7-685-648-79 +BVTP 3X12
- 7-685-663-79 +BVTP 4X16
- ◇ 7-685-167-19 WASHER HEAD SCREW +P 4 X 35

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

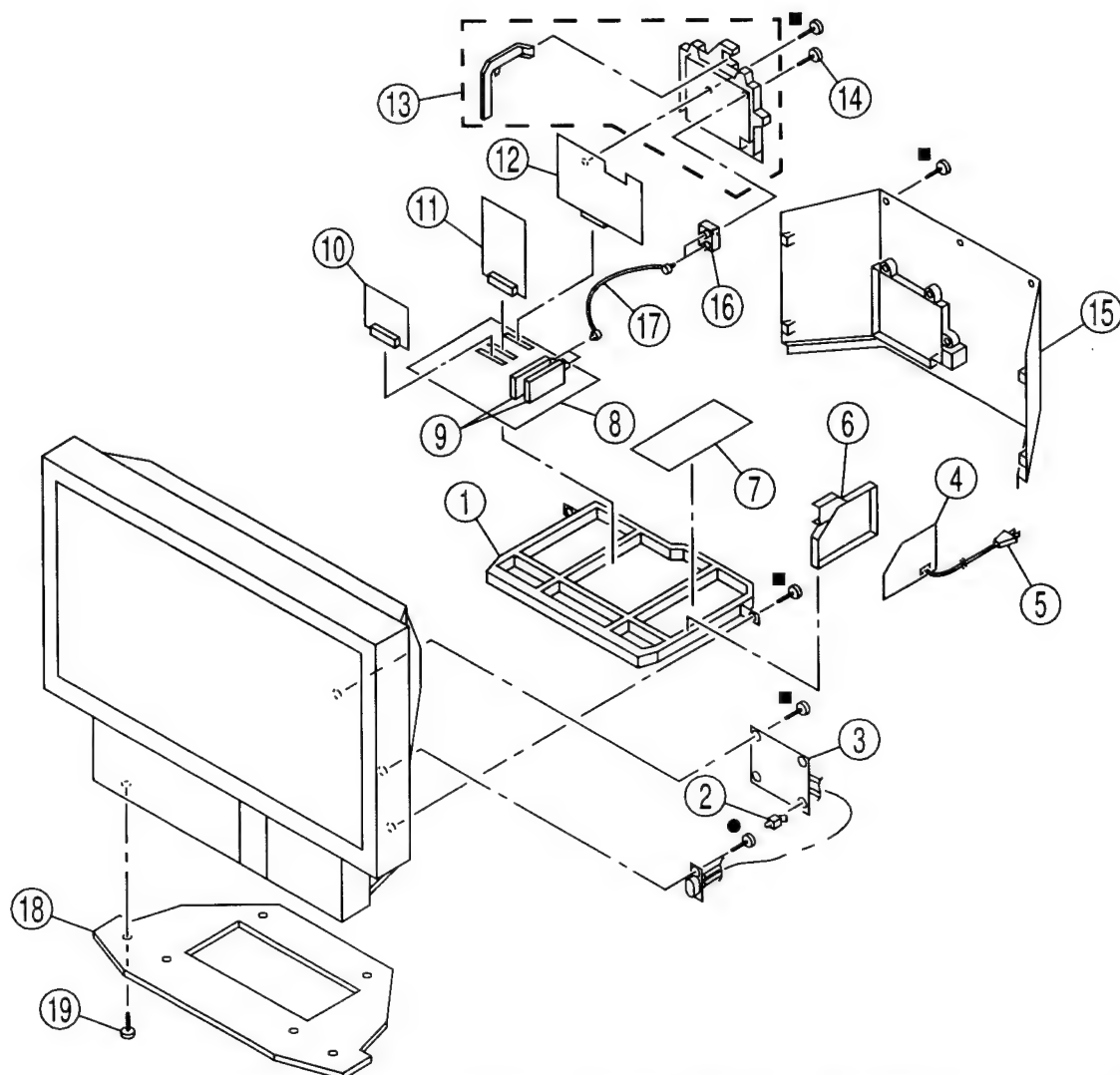


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
101	X-4033-824-1	FRAME ASSY, SCREEN		113	* A-1335-072-A	C BOARD, COMPLETE	
102	4-054-232-11	SCREEN, CONTRAST		114	1-543-653-11	CORE ASSY, BEAD(DIVISION TYPE)	
103	4-051-303-11	PLATE (L), DUFFUSION		115	* 3-703-141-00	HOLDER, PCB	
104	4-051-297-11	PLATE (F), DUFFUSION		116	A-1501-090-A	PANEL BLOCK ASSY (B)	
105	* 4-049-644-01	HOLDER, SCREEN (S1)		117	A-1501-091-A	PANEL BLOCK ASSY (G)	
106	* 4-033-782-02	HOLDER (S), SCREEN		118	A-1501-089-A	PANEL BLOCK ASSY (R)	
107	* 4-051-296-01	HOLDER, MIRROR		119	 1-473-544-13	OPTICAL UNIT	
108	4-051-283-01	MIRROR		120	* 4-051-825-11	SHIELD, OPTICAL	
109	X-4033-329-2	COVER ASSY, MIRROR		121	* 4-051-343-01	BASE, LAMP	
110	1-698-696-11	FAN, DC		122	 1-533-746-11	THERMOSTAT	
111	4-384-096-01	SCREW (4X16), TAPPING, +P		123	* X-4033-826-1	CABINET ASSY, BOTTOM	
112	1-505-208-11	SPEAKER (10CM)					

#### 5-4. CHASSIS [KL-50W1/50W1K/50W1U]

- 7-685-648-79 +BVTP 3X12
- 7-685-663-79 +BVTP 4X16

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.



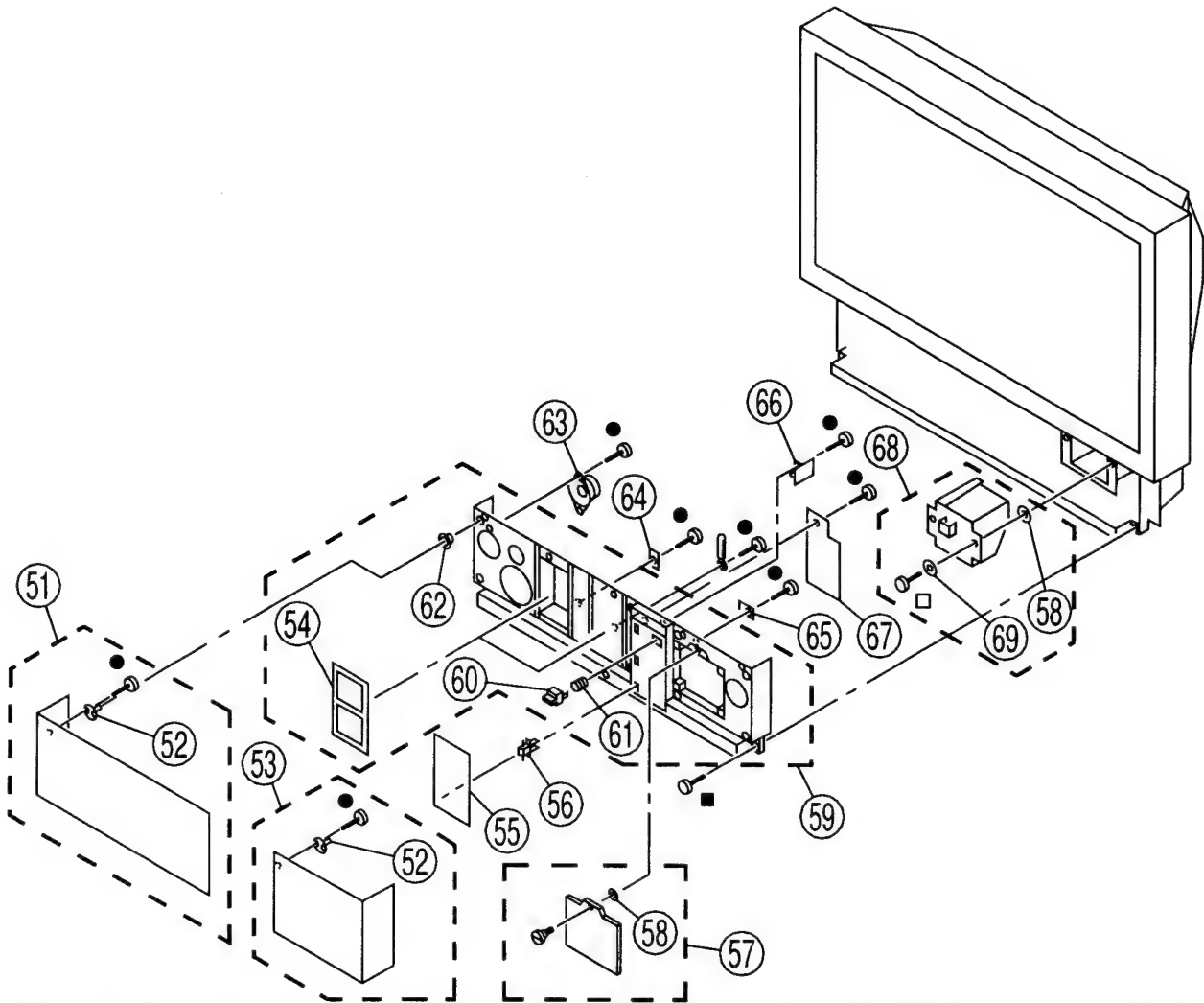
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*4-054-721-01	BRACKET, MAIN		10	*A-1135-870-A	BB BOARD, COMPLETE	
2	*3-703-141-00	HOLDER, PCB		11	*A-1135-884-A	B1 BOARD, COMPLETE	
3	$\Delta$ 1-473-545-11	POWER BLOCK		12	*A-1388-189-A	J BOARD, COMPLETE	
4	*A-1241-255-A	F2 BOARD, COMPLETE		13	4-054-727-01	TERMINAL BOARD	
5	$\Delta$ 1-765-286-11	CORD, POWER 10A/250V	(KL-50W1/50W1K)	14	4-379-611-01	SCREW (M3X8), +B	
5	$\Delta$ 1-776-860-11	POWER CORD, FILTER (UK)	(KL-50W1U)	15	X-4033-267-2	COVER ASSY, REAR	
6	*4-054-722-01	BRACKET, F2		16	1-251-459-11	BOOSTER, RF	
7	*A-1311-494-A	G BOARD, COMPLETE		17	*1-777-539-11	CABLE, PIN	
8	*A-1297-924-A	A BOARD, COMPLETE		18	4-055-250-01	PEDESTAL	
9	$\Delta$ 1-693-340-21	TUNER		19	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	



KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838

5-5. FRONT COVER [KL-50W1/50W1K/50W1U]

- 7-685-648-79 +BVTP 3X12
- 7-685-663-79 +BVTP 4X16
- 7-683-421-04 HEXAGON SOCKET BOLT 4 X 12

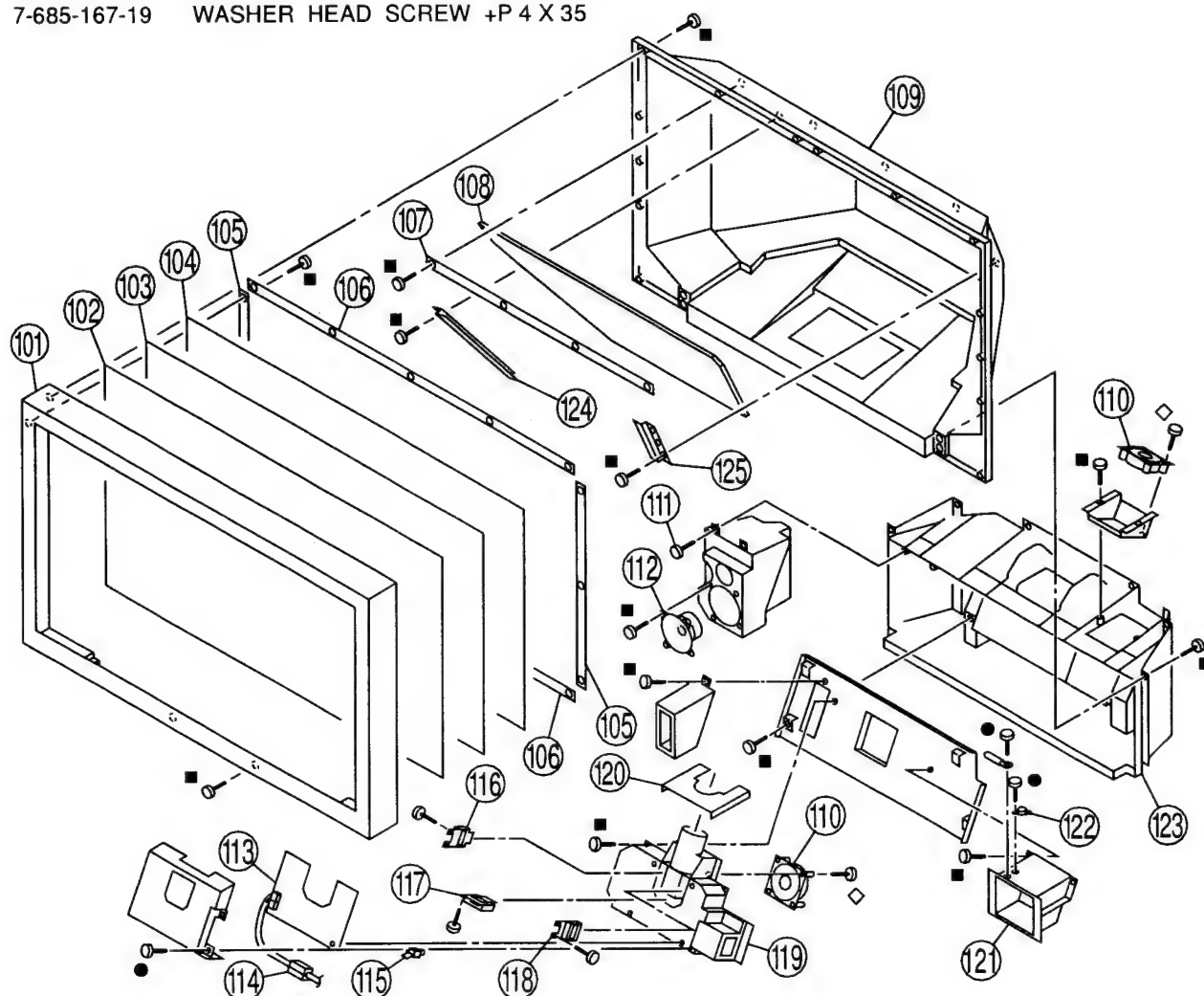


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4033-823-1	PANEL (L) ASSY, FRONT	52	60	4-051-285-01	BUTTON, POWER	
52	4-054-709-01	STRIKE	52	61	4-202-964-01	SPRING	
53	X-4033-821-1	PANEL (R) ASSY, FRONT	52	62	*4-838-438-00	LATCH	
54	4-051-312-01	FILTER		63	1-505-207-11	SPEAKER (5.7CM)	
55	X-4033-819-1	DOOR ASSY (KL-50W1/50W1U)		64	*A-1390-622-A	TB BOARD, COMPLETE	
55	X-4033-819-2	DOOR ASSY (KL-50W1K)		65	*A-1390-621-A	TA BOARD, COMPLETE	
56	3-703-035-11	SHAFT, LID		66	*A-1241-256-A	F1 BOARD, COMPLETE	
57	X-4033-818-2	DOOR ASSY, LAMP	58	67	*A-1372-259-A	H BOARD, COMPLETE	
58	*3-650-537-00	WASHER		68	A-1501-092-A	LAMP BLOCK ASSY	58, 69
59	X-4033-825-1	COVER ASSY, FRONT	54, 60-62	69	3-901-261-01	WASHER	

## 5-6. SCREEN MIRROR BLOCK AND OPTICS UNIT

[KL-50W1/50W1K/50W1U]

- 7-685-648-79 +BVTP 3X12
- 7-685-663-79 +BVTP 4X16
- ◇ 7-685-167-19 WASHER HEAD SCREW +P 4 X 35



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
101	X-4033-874-1	FRAME ASSY, SCREEN		114	1-543-653-11	CORE ASSY, BEAD(DIVISION TYPE)	
102	4-054-231-11	SCREEN, CONTRAST		115	* 3-703-141-00	HOLDER, PCB	
103	4-054-229-11	PLATE (L), DUFFUSION		116	A-1501-090-A	PANEL BLOCK ASSY (B)	
104	4-054-230-11	PLATE (F), DUFFUSION		117	A-1501-091-A	PANEL BLOCK ASSY (G)	
105	* 4-033-782-02	HOLDER (S), SCREEN		118	A-1501-089-A	PANEL BLOCK ASSY (R)	
106	* 4-055-161-01	HOLDER (50), SCREEN		119	△ 1-473-544-13	OPTICAL UNIT	
107	* 4-037-351-01	HOLDER, MIRROR		120	* 4-051-825-11	SHIELD, OPTICAL	
108	4-055-162-01	MIRROR (50)		121	* 4-051-343-01	BASE, LAMP	
109	X-4033-875-1	COVER ASSY, MIRROR		122	△ 1-533-746-11	THERMOSTAT	
110	1-698-696-11	FAN, DC		123	* X-4033-826-1	CABINET ASSY, BOTTOM	
111	4-384-096-01	SCREW (4X16), TAPPING, +P		124	* 4-055-163-01	HOLDER (L), MIRROR	
112	1-505-208-11	SPEAKER (10CM)		125	* 4-055-164-01	HOLDER (R), MIRROR	
113	* A-1335-079-A	C BOARD, COMPLETE					



## SECTION 6 ELECTRICAL PARTS LIST

**NOTE:**

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
* A-1135-870-A BB BOARD, COMPLETE *****				C3040	1-163-038-00	CERAMIC CHIP 0.1MF	25V
<CAPACITOR>				C3041	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3001	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3044	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3002	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3045	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3003	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V	C3046	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V
C3004	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3047	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3005	1-104-851-11	TANTAL. CHIP 10MF	20% 10V	C3048	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V
C3006	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3049	1-163-227-11	CERAMIC CHIP 10pF	0.5pF 50V
C3007	1-126-206-11	ELECT 100MF	20% 6.3V	C3050	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3008	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3051	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3009	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C3052	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V
C3010	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V	C3054	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3011	1-126-206-11	ELECT 100MF	20% 6.3V	C3055	1-163-243-11	CERAMIC CHIP 47pF	5% 50V
C3012	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3056	1-163-243-11	CERAMIC CHIP 47pF	5% 50V
C3013	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3057	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3014	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3058	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V
C3015	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V	C3059	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3016	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3060	1-163-091-00	CERAMIC CHIP 8pF	0.25pF 50V
C3017	1-110-569-11	TANTAL. CHIP 47MF	20% 6.3V	C3061	1-104-851-11	TANTAL. CHIP 10MF	20% 10V
C3018	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3062	1-163-133-00	CERAMIC CHIP 470pF	5% 50V
C3019	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C3070	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V
C3020	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V	C3071	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3021	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3072	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3022	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V	C3073	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3023	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3074	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3024	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3075	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3025	1-110-569-11	TANTAL. CHIP 47MF	20% 6.3V	C3076	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3026	1-126-206-11	ELECT 100MF	20% 6.3V	C3077	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3027	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3078	1-104-559-11	FILM CHIP 0.047MF	5% 16V
C3028	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3079	1-135-145-11	TANTAL. CHIP 0.47MF	20% 25V
C3029	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C3091	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3030	1-126-206-11	ELECT 100MF	20% 6.3V	C3092	1-126-205-11	ELECT 47MF	20% 6.3V
C3031	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3093	1-124-778-00	ELECT 22MF	20% 6.3V
C3032	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3094	1-124-778-00	ELECT 22MF	20% 6.3V
C3033	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V	C3095	1-124-778-00	ELECT 22MF	20% 6.3V
C3035	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3096	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3036	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3097	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3038	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C3100	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C3039	1-135-157-21	TANTAL. CHIP 10MF	20% 6.3V	C3101	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C3102	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V

BB

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>					
	CN3001	1-695-301-11 CONNECTOR, BOARD TO BOARD 40P			IC3015	8-752-379-90 IC CXD2066Q	
					IC3016	8-759-082-59 IC TC7W32FU	
		<DIODE>				<CHIP CONDUCTOR>	
	D3001	8-719-158-19 DIODE RD6.2SB		JR2	1-216-295-00 CONDUCTOR, CHIP		
	D3002	8-719-158-19 DIODE RD6.2SB		JR4	1-216-295-00 CONDUCTOR, CHIP		
	D3003	8-719-158-19 DIODE RD6.2SB					
	D3004	8-719-404-49 DIODE MA111				<COIL>	
	D3005	8-719-404-49 DIODE MA111					
		<FERRITE BEAD>					
	FB3001	1-543-813-21 FILTER, EMI		L3001	1-412-031-11 INDUCTOR CHIP	47UH	
	FB3002	1-543-813-21 FILTER, EMI		L3002	1-412-031-11 INDUCTOR CHIP	47UH	
	FB3003	1-543-813-21 FILTER, EMI		L3004	1-410-192-51 INDUCTOR CHIP	1UH	
	FB3004	1-543-813-21 FILTER, EMI		L3007	1-412-031-11 INDUCTOR CHIP	47UH	
	FB3005	1-543-813-21 FILTER, EMI		L3008	1-412-031-11 INDUCTOR CHIP	47UH	
	FB3006	1-543-813-21 FILTER, EMI		L3009	1-412-031-11 INDUCTOR CHIP	47UH	
	FB3007	1-543-813-21 FILTER, EMI		L3010	1-412-031-11 INDUCTOR CHIP	47UH	
		<FILTER>				<TRANSISTOR>	
	FL3001	1-233-512-21 FILTER, EMI		Q3001	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3002	1-233-512-21 FILTER, EMI		Q3002	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3003	1-233-512-21 FILTER, EMI		Q3003	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3004	1-233-512-21 FILTER, EMI		Q3004	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3005	1-233-512-21 FILTER, EMI		Q3005	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3006	1-233-512-21 FILTER, EMI		Q3006	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3008	1-233-512-21 FILTER, EMI		Q3007	8-729-920-74 TRANSISTOR 2SC2412K-QR		
	FL3009	1-233-512-21 FILTER, EMI		Q3015	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3010	1-233-512-21 FILTER, EMI		Q3016	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3011	1-233-512-21 FILTER, EMI		Q3017	8-729-216-22 TRANSISTOR 2SA1162-G		
	FL3012	1-233-446-11 FILTER, LOW PASS		Q3018	8-729-920-74 TRANSISTOR 2SC2412K-QR		
	FL3013	1-236-620-11 FILTER, LOW PASS		Q3019	8-729-920-74 TRANSISTOR 2SC2412K-QR		
	FL3014	1-236-620-11 FILTER, LOW PASS		Q3020	8-729-920-74 TRANSISTOR 2SC2412K-QR		
	FL3015	1-233-435-11 FILTER, LOW PASS					
	FL3016	1-233-435-11 FILTER, LOW PASS				<RESISTOR>	
	FL3017	1-233-435-11 FILTER, LOW PASS		R3001	1-216-025-00 METAL GLAZE 100	5%	1/10W
				R3002	1-216-023-00 METAL GLAZE 82	5%	1/10W
				R3003	1-208-814-11 METAL CHIP 22K	0.50%	1/10W
				R3004	1-216-655-11 METAL CHIP 1.5K	0.50%	1/10W
				R3005	1-216-025-00 METAL GLAZE 100	5%	1/10W
		<IC>		R3006	1-216-023-00 METAL GLAZE 82	5%	1/10W
	IC3001	8-752-337-04 IC CXD1176Q		R3007	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3002	8-752-337-04 IC CXD1176Q		R3008	1-216-073-00 METAL GLAZE 10K	5%	1/10W
	IC3003	8-752-337-04 IC CXD1176Q		R3009	1-216-073-00 METAL GLAZE 10K	5%	1/10W
	IC3004	8-752-338-46 IC CXD1178Q		R3010	1-216-073-00 METAL GLAZE 10K	5%	1/10W
	IC3005	8-759-398-16 IC MC74HCU04DR2					
				R3011	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3006	8-759-398-17 IC MC74HC04ADR2		R3012	1-216-073-00 METAL GLAZE 10K	5%	1/10W
	IC3007	8-752-365-06 IC CXK48324R-1		R3013	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3008	8-752-377-13 IC CXD2428Q		R3014	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3009	8-759-295-09 IC TLC2932IPW		R3015	1-216-073-00 METAL GLAZE 10K	5%	1/10W
	IC3010	8-752-365-06 IC CXK48324R-1					
				R3017	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3011	8-759-083-94 IC TC7W74FU		R3018	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3012	8-752-360-44 IC CXK1203AR		R3019	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3013	8-752-360-44 IC CXK1203AR		R3020	1-216-025-00 METAL GLAZE 100	5%	1/10W
	IC3014	8-752-360-44 IC CXK1203AR		R3021	1-216-023-00 METAL GLAZE 82	5%	1/10W

**KL-37W1/37W1K/37W1U RM-838**  
**KL-50W1/50W1K/50W1U RM-838**

**BB B<sub>1</sub>**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3022	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R3082	1-216-043-91	METAL GLAZE 560	5% 1/10W
R3023	1-216-037-00	METAL GLAZE	330 5% 1/10W	R3083	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R3024	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R3084	1-216-037-00	METAL GLAZE 330	5% 1/10W
R3025	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3085	1-216-043-91	METAL GLAZE 560	5% 1/10W
R3026	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R3027	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3086	1-216-041-00	METAL GLAZE 470	5% 1/10W
R3028	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R3087	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R3029	1-208-810-11	METAL CHIP	15K 0.50% 1/10W	R3090	1-216-041-00	METAL GLAZE 470	5% 1/10W
R3030	1-208-806-11	METAL CHIP	10K 0.50% 1/10W	R3091	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R3031	1-216-037-00	METAL GLAZE	330 5% 1/10W	R3092	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R3032	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3093	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R3033	1-216-663-11	METAL CHIP	3.3K 0.50% 1/10W	R3094	1-216-025-00	METAL GLAZE 100	5% 1/10W
R3034	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W				
R3035	1-216-635-11	METAL CHIP	220 0.50% 1/10W				
R3036	1-216-037-00	METAL GLAZE	330 5% 1/10W				
R3037	1-216-001-00	METAL GLAZE	10 5% 1/10W				
R3038	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W				
R3039	1-216-635-11	METAL CHIP	220 0.50% 1/10W				
R3040	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3041	1-208-845-11	METAL GLAZE	1M 5% 1/10W				
R3042	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R3043	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3044	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3045	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3046	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3047	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3048	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3049	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R3050	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R3051	1-216-295-00	CONDUCTOR, CHIP					
R3053	1-216-627-11	METAL CHIP	100 0.50% 1/10W				
R3054	1-216-629-11	METAL CHIP	120 0.50% 1/10W				
R3055	1-216-639-11	METAL CHIP	330 0.50% 1/10W				
R3056	1-216-648-11	METAL CHIP	750 0.50% 1/10W				
R3057	1-216-639-11	METAL CHIP	330 0.50% 1/10W				
R3058	1-216-295-00	CONDUCTOR, CHIP					
R3059	1-216-631-11	METAL CHIP	150 0.50% 1/10W				
R3060	1-216-651-11	METAL CHIP	1K 0.50% 1/10W				
R3061	1-216-642-11	METAL CHIP	430 0.50% 1/10W				
R3063	1-216-113-00	METAL GLAZE	470K 5% 1/10W				
R3064	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R3065	1-216-085-00	METAL GLAZE	33K 5% 1/10W				
R3066	1-216-075-00	METAL GLAZE	12K 5% 1/10W				
R3067	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R3068	1-216-075-00	METAL GLAZE	12K 5% 1/10W				
R3069	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R3070	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R3071	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3072	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R3073	1-216-113-00	METAL GLAZE	470K 5% 1/10W				
R3075	1-216-043-91	METAL GLAZE	560 5% 1/10W				
R3076	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R3077	1-216-075-00	METAL GLAZE	12K 5% 1/10W				
R3078	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R3080	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R3081	1-216-037-00	METAL GLAZE	330 5% 1/10W				

REF.NO.	PART NO.	DESCRIPTION	REMARK
R3082	1-216-043-91	METAL GLAZE 560	5% 1/10W
R3083	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R3084	1-216-037-00	METAL GLAZE 330	5% 1/10W
R3085	1-216-043-91	METAL GLAZE 560	5% 1/10W
R3086	1-216-041-00	METAL GLAZE 470	5% 1/10W
R3087	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R3090	1-216-041-00	METAL GLAZE 470	5% 1/10W
R3091	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R3092	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R3093	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R3094	1-216-025-00	METAL GLAZE 100	5% 1/10W
		<CRYSTAL>	
X3001	1-579-619-23	VIBRATOR, CRYSTAL	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C4035	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4122	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4036	1-126-964-11	ELECT 10MF	20% 50V	C4123	1-163-099-00	CERAMIC CHIP 18pF	5% 50V
C4037	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C4124	1-163-113-00	CERAMIC CHIP 68pF	5% 50V
C4038	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C4125	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C4039	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C4046	1-163-092-00	CERAMIC CHIP 9pF	0.25pF 50V	C4126	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C4047	1-163-137-00	CERAMIC CHIP 680pF	5% 50V	C4127	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
C4048	1-163-227-11	CERAMIC CHIP 10pF	0.5pF 50V	C4128	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C4049	1-163-137-00	CERAMIC CHIP 680pF	5% 50V	C4129	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C4050	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4130	1-126-964-11	ELECT 10MF	20% 50V
C4051	1-126-967-11	ELECT 47MF	20% 16V	C4131	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C4052	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C4136	1-163-251-11	CERAMIC CHIP 100pF	5% 50V
C4053	1-163-263-11	CERAMIC CHIP 330pF	5% 50V	C4143	1-126-924-11	ELECT 330MF	20% 10V
C4054	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C4144	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V
C4055	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C4145	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4056	1-163-253-11	CERAMIC CHIP 120pF	5% 50V	C4146	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C4057	1-126-964-11	ELECT 10MF	20% 50V	C4147	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4064	1-126-964-11	ELECT 10MF	20% 50V	C4148	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4065	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4149	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C4066	1-126-964-11	ELECT 10MF	20% 50V	C4150	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C4072	1-126-923-11	ELECT 220MF	20% 10V	C4151	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4073	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4152	1-163-227-11	CERAMIC CHIP 10pF	0.5pF 50V
C4074	1-126-923-11	ELECT 220MF	20% 10V	C4153	1-163-137-00	CERAMIC CHIP 680pF	5% 50V
C4077	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4154	1-163-096-00	CERAMIC CHIP 13pF	5% 50V
C4078	1-126-923-11	ELECT 220MF	20% 10V	C4155	1-163-137-00	CERAMIC CHIP 680pF	5% 50V
C4079	1-126-923-11	ELECT 220MF	20% 10V	C4156	1-163-263-11	CERAMIC CHIP 330pF	5% 50V
C4080	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4157	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C4081	1-126-923-11	ELECT 220MF	20% 10V	C4158	1-126-967-11	ELECT 47MF	20% 16V
C4082	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4159	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4083	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4160	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C4084	1-126-923-11	ELECT 220MF	20% 10V	C4161	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C4085	1-126-964-11	ELECT 10MF	20% 50V	C4162	1-163-253-11	CERAMIC CHIP 120pF	5% 50V
C4086	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4168	1-126-964-11	ELECT 10MF	20% 50V
C4087	1-126-967-11	ELECT 47MF	20% 16V	C4174	1-126-964-11	ELECT 10MF	20% 50V
C4100	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4175	1-163-237-11	CERAMIC CHIP 27pF	5% 50V
C4101	1-163-245-11	CERAMIC CHIP 56pF	5% 50V	C4176	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4102	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C4177	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4103	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4178	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C4104	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4179	1-124-902-00	ELECT 0.47MF	20% 50V
C4105	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	C4180	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C4106	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4181	1-126-967-11	ELECT 47MF	20% 16V
C4107	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C4182	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4108	1-163-235-11	CERAMIC CHIP 22pF	5% 50V	C4183	1-104-665-11	ELECT 100MF	20% 25V
C4109	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C4184	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4110	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4185	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C4111	1-126-964-11	ELECT 10MF	20% 50V	C4186	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V
C4112	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C4187	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C4113	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4188	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C4114	1-126-964-11	ELECT 10MF	20% 50V	C4189	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C4115	1-126-964-11	ELECT 10MF	20% 50V	C4190	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C4116	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4191	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V
C4117	1-126-964-11	ELECT 10MF	20% 50V	C4192	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
C4118	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C4193	1-163-237-11	CERAMIC CHIP 27pF	5% 50V
C4119	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C4195	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4120	1-163-133-00	CERAMIC CHIP 470pF	5% 50V	C4196	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C4121	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C4197	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C4198	1-163-031-11	CERAMIC CHIP 0.01MF	50V



KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838

**B<sub>1</sub>**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C4199	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C4279	1-124-442-00	ELECT 330MF 20% 6.3V	
C4200	1-163-038-00	CERAMIC CHIP 0.1MF	25V			<CONNECTOR>	
C4201	1-163-031-11	CERAMIC CHIP 0.01MF	50V			CN1016 1-695-301-11	CONNECTOR, BOARD TO BOARD 40P
C4202	1-163-245-11	CERAMIC CHIP 56pF	5% 50V			<DIODE>	
C4203	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D303	8-719-404-49	DIODE MA111	
C4204	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D4003	8-719-991-33	DIODE 1SS133T-77	
C4205	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	D4004	8-719-031-68	DIODE HVU359TRF	
C4206	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D4005	8-719-914-43	DIODE DAN202K	
C4207	1-163-235-11	CERAMIC CHIP 22pF	5% 50V	D4006	8-719-404-49	DIODE MA111	
C4208	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D4007	8-719-031-68	DIODE HVU359TRF	
C4209	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D4008	8-719-914-43	DIODE DAN202K	
C4210	1-126-964-11	ELECT 10MF	20% 50V	D4009	8-719-914-43	DIODE DAN202K	
C4211	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D4010	8-719-031-68	DIODE HVU359TRF	
C4212	1-126-964-11	ELECT 10MF	20% 50V	D4011	8-719-031-68	DIODE HVU359TRF	
C4213	1-126-964-11	ELECT 10MF	20% 50V	D4014	8-719-404-49	DIODE MA111	
C4214	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D4015	8-719-914-43	DIODE DAN202K	
C4215	1-126-964-11	ELECT 10MF	20% 50V	D4016	8-719-914-43	DIODE DAN202K	
C4216	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D4017	8-719-914-43	DIODE DAN202K	
C4217	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D4018	8-719-404-49	DIODE MA111	
C4218	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	D4019	8-719-031-68	DIODE HVU359TRF	
C4220	1-163-099-00	CERAMIC CHIP 18pF	5% 50V	D4020	8-719-031-68	DIODE HVU359TRF	
C4221	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D4022	8-719-404-49	DIODE MA111	
C4222	1-163-133-00	CERAMIC CHIP 470pF	5% 50V	D4023	8-719-404-49	DIODE MA111	
C4223	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V			<FILTER>	
C4224	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	FL4001	1-233-436-11	FILTER, LOW PASS	
C4225	1-163-113-00	CERAMIC CHIP 68pF	5% 50V	FL4002	1-233-436-11	FILTER, LOW PASS	
C4226	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	FL4003	1-233-435-11	FILTER, LOW PASS	
C4227	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL4004	1-233-435-11	FILTER, LOW PASS	
C4228	1-163-031-11	CERAMIC CHIP 0.01MF	50V	FL4005	1-233-435-11	FILTER, LOW PASS	
C4229	1-126-964-11	ELECT 10MF	20% 50V	FL4006	1-233-434-11	FILTER, LOW PASS	
C4230	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	FL4008	1-233-434-11	FILTER, LOW PASS	
C4231	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V	FL4009	1-233-434-11	FILTER, LOW PASS	
C4239	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL4013	1-233-435-11	FILTER, LOW PASS	
C4240	1-163-031-11	CERAMIC CHIP 0.01MF	50V	FL4014	1-233-436-11	FILTER, LOW PASS	
C4245	1-126-964-11	ELECT 10MF	20% 50V	FL4015	1-233-436-11	FILTER, LOW PASS	
C4246	1-126-965-11	ELECT 22MF	20% 50V	FL4016	1-233-434-11	FILTER, LOW PASS	
C4247	1-164-346-11	CERAMIC CHIP 1MF	16V	FL4017	1-233-736-21	FILTER, EMI	
C4248	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL4018	1-233-736-21	FILTER, EMI	
C4249	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL4019	1-233-736-21	FILTER, EMI	
C4250	1-126-964-11	ELECT 10MF	20% 50V	FL4020	1-233-736-21	FILTER, EMI	
C4251	1-126-964-11	ELECT 10MF	20% 50V	FL4021	1-233-736-21	FILTER, EMI	
C4252	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL4022	1-233-736-21	FILTER, EMI	
C4253	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL4023	1-233-736-21	FILTER, EMI	
C4254	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	FL4024	1-233-736-21	FILTER, EMI	
C4255	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	FL4025	1-233-736-21	FILTER, EMI	
C4257	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V			<IC>	
C4258	1-163-143-00	CERAMIC CHIP 0.0012MF	5% 50V	IC4001	8-752-068-39	IC CXA1840S	
C4261	1-163-253-11	CERAMIC CHIP 120pF	5% 50V	IC4002	8-759-183-36	IC TDA8443B	
C4271	1-163-257-11	CERAMIC CHIP 180pF	5% 50V				
C4272	1-163-257-11	CERAMIC CHIP 180pF	5% 50V				
C4273	1-163-257-11	CERAMIC CHIP 180pF	5% 50V				
C4274	1-163-253-11	CERAMIC CHIP 120pF	5% 50V				
C4275	1-126-923-11	ELECT 220MF	20% 10V				
C4276	1-126-923-11	ELECT 220MF	20% 10V				
C4277	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C4278	1-124-442-00	ELECT 330MF	20% 6.3V				



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
IC4003	8-752-369-84	IC CXD2309Q-T6		L4032	1-408-401-00	INDUCTOR 2.2UH	
IC4004	8-752-369-15	IC CXD2030R					
IC4005	8-752-357-86	IC CXD2300Q-T4				<TRANSISTOR>	
IC4006	8-752-070-58	IC CXA1860Q-T4		Q4001	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4007	8-759-430-79	IC TDA8395T/N3		Q4002	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4008	8-759-981-61	IC LM2901M		Q4003	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4009	8-759-398-17	IC MC74HC04ADR2		Q4004	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4010	8-752-370-85	IC CXD2032Q-TL		Q4005	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4011	8-752-369-15	IC CXD2030R		Q4006	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4012	8-752-357-86	IC CXD2300Q-T4		Q4007	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4013	8-752-068-39	IC CXA1840S		Q4008	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4014	8-752-070-58	IC CXA1860Q-T4		Q4009	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4015	8-759-430-79	IC TDA8395T/N3		Q4010	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4016	8-759-981-61	IC LM2901M		Q4011	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4017	8-759-398-19	IC MC74HC4053DWR2		Q4013	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC4018	8-752-338-46	IC CXD1178Q		Q4014	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC4019	8-752-337-04	IC CXD1176Q		Q4015	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4020	8-752-337-04	IC CXD1176Q		Q4016	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC4021	8-759-352-06	IC CXD2031R-65846GJ0153EN		Q4017	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC4022	8-759-398-19	IC MC74HC4053DWR2		Q4018	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4023	8-759-009-02	IC MC14046BF		Q4020	8-729-900-53	TRANSISTOR DTC114EK	
IC4024	8-759-234-77	IC TC4S66F		Q4021	8-729-027-23	TRANSISTOR DTA114EKA-T146	
IC4025	8-759-352-05	IC MSM548332		Q4022	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4026	8-759-398-17	IC MC74HC04ADR2		Q4023	8-729-216-22	TRANSISTOR 2SA1162-G	
IC4027	8-759-251-48	IC UPC358GR-E1		Q4024	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC4028	8-759-398-16	IC MC74HCU04DR2		Q4025	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<COIL>		Q4026	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4001	1-408-397-00	INDUCTOR 1UH		Q4027	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4002	1-408-397-00	INDUCTOR 1UH		Q4028	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4004	1-414-248-11	INDUCTOR 2.2UH		Q4029	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4005	1-408-397-00	INDUCTOR 1UH		Q4030	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4006	1-408-397-00	INDUCTOR 1UH		Q4031	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4007	1-408-401-00	INDUCTOR 2.2UH		Q4032	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4008	1-408-401-00	INDUCTOR 2.2UH		Q4034	8-729-216-22	TRANSISTOR 2SA1162-G	
L4011	1-408-401-00	INDUCTOR 2.2UH		Q4035	8-729-216-22	TRANSISTOR 2SA1162-G	
L4012	1-408-401-00	INDUCTOR 2.2UH		Q4036	8-729-216-22	TRANSISTOR 2SA1162-G	
L4013	1-408-397-00	INDUCTOR 1UH		Q4038	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4014	1-408-397-00	INDUCTOR 1UH		Q4039	8-729-216-22	TRANSISTOR 2SA1162-G	
L4015	1-408-397-00	INDUCTOR 1UH		Q4040	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4016	1-408-397-00	INDUCTOR 1UH		Q4043	8-729-216-22	TRANSISTOR 2SA1162-G	
L4018	1-408-397-00	INDUCTOR 1UH		Q4045	8-729-216-22	TRANSISTOR 2SA1162-G	
L4019	1-414-248-11	INDUCTOR 2.2UH		Q4046	8-729-216-22	TRANSISTOR 2SA1162-G	
L4020	1-408-397-00	INDUCTOR 1UH		Q4047	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4021	1-408-405-00	INDUCTOR 4.7UH		Q4048	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4022	1-408-405-00	INDUCTOR 4.7UH		Q4049	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4023	1-414-248-11	INDUCTOR 2.2UH		Q4050	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4024	1-414-248-11	INDUCTOR 2.2UH		Q4051	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4025	1-408-397-00	INDUCTOR 1UH		Q4052	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4026	1-408-397-00	INDUCTOR 1UH		Q4053	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4027	1-412-003-41	INDUCTOR CHIP 5.6UH		Q4054	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4028	1-414-248-11	INDUCTOR 2.2UH		Q4055	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L4029	1-414-248-11	INDUCTOR 2.2UH		Q4056	8-729-027-59	TRANSISTOR DTC144EKA-T146	
L4030	1-414-248-11	INDUCTOR 2.2UH		Q4057	8-729-216-22	TRANSISTOR 2SA1162-G	
L4031	1-408-401-00	INDUCTOR 2.2UH		Q4058	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q4059	8-729-216-22	TRANSISTOR 2SA1162-G	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q4060	8-729-216-22	TRANSISTOR 2SA1162-G		R4023	1-216-097-00	METAL GLAZE 100K	5% 1/10W
Q4061	8-729-216-22	TRANSISTOR 2SA1162-G		R4024	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q4062	8-729-216-22	TRANSISTOR 2SA1162-G		R4025	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
				R4026	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
Q4063	8-729-216-22	TRANSISTOR 2SA1162-G		R4027	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
Q4064	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q4065	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4028	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
Q4066	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4029	1-216-081-00	METAL GLAZE 22K	5% 1/10W
Q4067	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4030	1-216-081-00	METAL GLAZE 22K	5% 1/10W
				R4031	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q4068	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4032	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q4069	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q4070	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4033	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q4071	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4034	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q4072	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4035	1-216-033-00	METAL GLAZE 220	5% 1/10W
				R4036	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q4073	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4040	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
Q4074	8-729-216-22	TRANSISTOR 2SA1162-G					
Q4075	8-729-900-53	TRANSISTOR DTC114EK		R4041	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q4076	8-729-027-23	TRANSISTOR DTA114EKA-T146		R4042	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q4077	8-729-216-22	TRANSISTOR 2SA1162-G		R4044	1-216-045-00	METAL GLAZE 680	5% 1/10W
				R4045	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
Q4078	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4046	1-216-045-00	METAL GLAZE 680	5% 1/10W
Q4079	8-729-027-23	TRANSISTOR DTA114EKA-T146					
Q4080	8-729-216-22	TRANSISTOR 2SA1162-G		R4047	1-208-800-11	METAL CHIP 5.6K	0.50%1/10W
Q4081	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4048	1-216-045-00	METAL GLAZE 680	5% 1/10W
Q4082	8-729-216-22	TRANSISTOR 2SA1162-G		R4049	1-208-800-11	METAL CHIP 5.6K	0.50%1/10W
				R4050	1-216-645-11	METAL CHIP 560	0.50%1/10W
Q4083	8-729-900-53	TRANSISTOR DTC114EK		R4051	1-216-045-00	METAL GLAZE 680	5% 1/10W
Q4084	8-729-027-23	TRANSISTOR DTA114EKA-T146					
Q4085	8-729-216-22	TRANSISTOR 2SA1162-G		R4052	1-216-631-11	METAL CHIP 150	0.50%1/10W
Q4086	8-729-920-74	TRANSISTOR 2SC2412K-QR		R4053	1-216-631-11	METAL CHIP 150	0.50%1/10W
Q4087	8-729-216-22	TRANSISTOR 2SA1162-G		R4054	1-216-045-00	METAL GLAZE 680	5% 1/10W
				R4055	1-216-645-11	METAL CHIP 560	0.50%1/10W
Q4088	8-729-027-23	TRANSISTOR DTA114EKA-T146		R4056	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q4089	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q4090	8-729-900-53	TRANSISTOR DTC114EK		R4057	1-216-045-00	METAL GLAZE 680	5% 1/10W
Q4091	8-729-900-53	TRANSISTOR DTC114EK		R4058	1-216-632-11	METAL CHIP 160	0.50%1/10W
Q4092	8-729-119-78	TRANSISTOR 2SC2785-HFE		R4059	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W
				R4060	1-216-660-11	METAL CHIP 2.4K	0.50%1/10W
				R4061	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W
<RESISTOR>							
R4001	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R4062	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R4002	1-216-045-00	METAL GLAZE 680	5% 1/10W	R4063	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R4003	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R4064	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4004	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R4065	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4005	1-216-673-11	METAL CHIP 8.2K	0.50%1/10W	R4066	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R4007	1-216-033-00	METAL GLAZE 220	5% 1/10W	R4067	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R4009	1-216-037-00	METAL GLAZE 330	5% 1/10W	R4068	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R4010	1-216-045-00	METAL GLAZE 680	5% 1/10W	R4069	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4011	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R4070	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R4012	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4071	1-216-043-91	METAL GLAZE 560	5% 1/10W
R4013	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4072	1-216-647-11	METAL CHIP 680	0.50%1/10W
R4014	1-216-025-00	METAL GLAZE 100	5% 1/10W	R4073	1-208-767-11	METAL CHIP 240	0.50%1/10W
R4015	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R4074	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R4016	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R4075	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4017	1-216-033-00	METAL GLAZE 220	5% 1/10W	R4076	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4018	1-216-033-00	METAL GLAZE 220	5% 1/10W	R4077	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4019	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R4078	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R4020	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R4079	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R4021	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R4080	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4022	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4081	1-216-624-11	METAL CHIP 75	0.50%1/10W
				R4082	1-216-664-11	METAL CHIP 3.6K	0.50%1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R4083	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	R4142	1-208-806-11	METAL CHIP 10K	0.50%1/10W
R4084	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R4143	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R4085	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4144	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4086	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W				
R4087	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R4145	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4089	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R4146	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R4090	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4147	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R4091	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4148	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R4093	1-216-647-11	METAL CHIP 680	0.50%1/10W	R4149	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
				R4150	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R4094	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4151	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4095	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R4152	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R4096	1-216-043-91	METAL GLAZE 560	5% 1/10W	R4153	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4098	1-208-767-11	METAL CHIP 240	0.50%1/10W	R4154	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R4099	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W				
R4100	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4155	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R4101	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4157	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4102	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4158	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R4103	1-216-624-11	METAL CHIP 75	0.50%1/10W	R4159	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4104	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4160	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R4105	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4161	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4106	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4162	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R4107	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4163	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R4108	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R4164	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4109	1-216-105-00	METAL GLAZE 220K	5% 1/10W	R4165	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R4110	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4166	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R4111	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4167	1-216-624-11	METAL CHIP 75	0.50%1/10W
R4112	1-216-648-11	METAL CHIP 750	0.50%1/10W	R4168	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4113	1-208-767-11	METAL CHIP 240	0.50%1/10W	R4169	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W
R4114	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4170	1-216-651-11	METAL CHIP 1K	0.50%1/10W
R4115	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R4171	1-208-767-11	METAL CHIP 240	0.50%1/10W
R4116	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4173	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R4117	1-216-626-11	METAL CHIP 91	0.50%1/10W	R4174	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R4118	1-216-650-11	METAL CHIP 910	0.50%1/10W	R4175	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4119	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R4178	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4120	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4179	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R4121	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R4180	1-216-043-91	METAL GLAZE 560	5% 1/10W
R4122	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4181	1-216-045-00	METAL GLAZE 680	5% 1/10W
R4123	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4182	1-208-767-11	METAL CHIP 240	0.50%1/10W
R4124	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4186	1-216-664-11	METAL CHIP 3.6K	0.50%1/10W
R4125	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4187	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
R4126	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R4188	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R4127	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R4189	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R4128	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4190	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R4129	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4191	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R4130	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4192	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4131	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4193	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R4132	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R4194	1-216-045-00	METAL GLAZE 680	5% 1/10W
R4133	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4195	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R4134	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4196	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R4135	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4197	1-216-673-11	METAL CHIP 8.2K	0.50%1/10W
R4136	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R4198	1-216-033-00	METAL GLAZE 220	5% 1/10W
R4137	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	R4201	1-216-037-00	METAL GLAZE 330	5% 1/10W
R4138	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4202	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R4139	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4203	1-216-045-00	METAL GLAZE 680	5% 1/10W
R4140	1-216-025-00	METAL GLAZE 100	5% 1/10W	R4204	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4141	1-208-812-11	METAL CHIP 18K	0.50%1/10W	R4206	1-216-113-00	METAL GLAZE 470K	5% 1/10W
				R4207	1-216-025-00	METAL GLAZE 100	5% 1/10W

**B<sub>1</sub>**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R4208	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R4267	1-216-037-00	METAL GLAZE 330	5% 1/10W
R4209	1-216-033-00	METAL GLAZE 220	5% 1/10W				
R4210	1-216-033-00	METAL GLAZE 220	5% 1/10W	R4268	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4211	1-216-624-11	METAL CHIP 75	0.50%1/10W	R4269	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4212	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4270	1-216-037-00	METAL GLAZE 330	5% 1/10W
R4213	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4271	1-216-045-00	METAL GLAZE 680	5% 1/10W
R4214	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4272	1-216-637-11	METAL CHIP 270	0.50%1/10W
R4215	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4273	1-216-637-11	METAL CHIP 270	0.50%1/10W
R4216	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R4274	1-216-637-11	METAL CHIP 270	0.50%1/10W
R4217	1-216-105-00	METAL GLAZE 220K	5% 1/10W	R4275	1-216-627-11	METAL CHIP 100	0.50%1/10W
R4218	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4276	1-216-627-11	METAL CHIP 100	0.50%1/10W
R4219	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4277	1-216-627-11	METAL CHIP 100	0.50%1/10W
R4220	1-216-648-11	METAL CHIP 750	0.50%1/10W	R4278	1-247-807-31	CARBON 100	5% 1/4W
R4221	1-208-767-11	METAL CHIP 240	0.50%1/10W	R4279	1-216-041-00	METAL GLAZE 470	5% 1/10W
R4222	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4280	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W
R4223	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R4281	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W
R4224	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4282	1-216-025-00	METAL GLAZE 100	5% 1/10W
R4225	1-216-626-11	METAL CHIP 91	0.50%1/10W	R4283	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4226	1-216-650-11	METAL CHIP 910	0.50%1/10W	R4284	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4227	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R4285	1-216-041-00	METAL GLAZE 470	5% 1/10W
R4228	1-208-812-11	METAL CHIP 18K	0.50%1/10W	R4286	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4229	1-216-025-00	METAL GLAZE 100	5% 1/10W	R4287	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R4230	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4288	1-216-041-00	METAL GLAZE 470	5% 1/10W
R4231	1-208-806-11	METAL CHIP 10K	0.50%1/10W	R4289	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4232	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R4290	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R4233	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4291	1-216-041-00	METAL GLAZE 470	5% 1/10W
R4234	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R4292	1-216-666-11	METAL CHIP 4.3K	0.50%1/10W
R4235	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R4293	1-216-645-11	METAL CHIP 560	0.50%1/10W
R4236	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4294	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4237	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4295	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4238	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4296	1-216-666-11	METAL CHIP 4.3K	0.50%1/10W
R4239	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4297	1-216-645-11	METAL CHIP 560	0.50%1/10W
R4240	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4298	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4241	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R4299	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4242	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4300	1-216-041-00	METAL GLAZE 470	5% 1/10W
R4243	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4301	1-216-666-11	METAL CHIP 4.3K	0.50%1/10W
R4244	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4302	1-216-645-11	METAL CHIP 560	0.50%1/10W
R4245	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R4303	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R4246	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R4304	1-216-041-00	METAL GLAZE 470	5% 1/10W
R4247	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4305	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4248	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4306	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R4249	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4307	1-208-806-11	METAL CHIP 10K	0.50%1/10W
R4250	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	R4308	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R4251	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R4309	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R4252	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R4313	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4253	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4314	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R4254	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4315	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4255	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R4316	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4256	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R4318	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4257	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R4319	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R4259	1-216-660-11	METAL CHIP 2.4K	0.50%1/10W	R4320	1-216-025-00	METAL GLAZE 100	5% 1/10W
R4260	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R4321	1-216-025-00	METAL GLAZE 100	5% 1/10W
R4261	1-216-033-00	METAL GLAZE 220	5% 1/10W	R4323	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4262	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R4324	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4263	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R4325	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R4265	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R4326	1-216-295-00	CONDUCTOR, CHIP	
				R4327	1-216-295-00	CONDUCTOR, CHIP	



The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

**B<sub>1</sub>** **F<sub>2</sub>**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R4328	1-216-295-00	CONDUCTOR, CHIP		* A-1241-255-A F2 BOARD, COMPLETE *****			
R4329	1-216-295-00	CONDUCTOR, CHIP		<CAPACITOR>			
R4330	1-216-295-00	CONDUCTOR, CHIP		C651 $\Delta$	1-136-519-12	FILM	0.47MF 20% 300V
R4331	1-216-295-00	CONDUCTOR, CHIP		C652 $\Delta$	1-136-518-12	FILM	0.33MF 20% 300V
R4332	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C653	1-107-670-41	ELECT	10MF 20% 400V
R4333	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C655	1-126-967-11	ELECT	47MF 20% 50V
R4334	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C657	1-126-968-11	ELECT	100MF 20% 50V
R4335	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	C658	1-126-951-11	ELECT	470MF 20% 35V
R4336	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	C659	1-104-665-11	ELECT	100MF 20% 25V
R4337	1-216-075-00	METAL GLAZE 12K	5% 1/10W	C660	1-104-664-11	ELECT	47MF 20% 25V
R4338	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C661	1-104-664-11	ELECT	47MF 20% 25V
R4339	1-216-001-00	METAL GLAZE 10	5% 1/10W	C662 $\Delta$	1-113-893-51	CERAMIC	0.0047MF 20% 250V
R4340	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C663 $\Delta$	1-113-924-11	CERAMIC	0.0047MF 20% 250V
R4341	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C664 $\Delta$	1-113-893-51	CERAMIC	0.0047MF 20% 250V
R4342	1-216-001-00	METAL GLAZE 10	5% 1/10W	C665 $\Delta$	1-113-924-11	CERAMIC	0.0047MF 20% 250V
R4343	1-216-077-00	METAL GLAZE 15K	5% 1/10W	C667	1-164-644-11	CERAMIC	330pF 10% 500V
R4344	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C668	1-164-644-11	CERAMIC	330pF 10% 500V
R4345	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	<CONNECTOR>			
R4346	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	CN6501*	1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
R4347	1-216-075-00	METAL GLAZE 12K	5% 1/10W	CN6503*	1-564-506-11	PLUG, CONNECTOR 3P	
R4348	1-216-049-00	METAL GLAZE 1K	5% 1/10W	CN6504*	1-580-843-11	PIN, CONNECTOR (POWER)	
R4349	1-216-001-00	METAL GLAZE 10	5% 1/10W	CN6505	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
R4350	1-216-049-00	METAL GLAZE 1K	5% 1/10W	CN6506*	1-564-508-11	PLUG, CONNECTOR 5P	
R4351	1-216-049-00	METAL GLAZE 1K	5% 1/10W	CN6507*	1-564-506-11	PLUG, CONNECTOR 3P	
R4352	1-216-001-00	METAL GLAZE 10	5% 1/10W	CN6509	1-695-915-11	TAB (CONTACT)	
R4353	1-216-077-00	METAL GLAZE 15K	5% 1/10W	CN6510*	1-564-506-11	PLUG, CONNECTOR 3P	
R4354	1-216-049-00	METAL GLAZE 1K	5% 1/10W	<DIODE>			
R4355	1-216-113-00	METAL GLAZE 470K	5% 1/10W	D652 $\Delta$	8-719-510-35	DIODE D2SBA60F	
R4357	1-216-073-00	METAL GLAZE 10K	5% 1/10W	D653	8-719-979-64	DIODE UF4005PKG23	
R4358	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	D654	8-719-059-23	DIODE P6KE200AG23	
R4359	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	D655	8-719-979-58	DIODE EGP10D	
R4360	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W	D656	8-719-979-58	DIODE EGP10D	
R4361	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W	D657	8-719-921-88	DIODE MTZJ-13B	
R4362	1-216-655-11	METAL CHIP 1.5K	0.50%1/10W	D658	8-719-510-64	DIODE S2LA20F	
R4363	1-216-049-00	METAL GLAZE 1K	5% 1/10W	D659	8-719-911-19	DIODE 1SS119-25	
R4364	1-216-049-00	METAL GLAZE 1K	5% 1/10W	D660	8-719-302-43	DIODE EL1Z	
R4366	1-216-295-00	CONDUCTOR, CHIP		D661	8-719-302-43	DIODE EL1Z	
R4368	1-216-295-00	CONDUCTOR, CHIP		<FUSE>			
R4370	1-216-025-00	METAL GLAZE 100	5% 1/10W	F651 $\Delta$	1-532-504-41	FUSE 4A/250V	
R4371	1-216-025-00	METAL GLAZE 100	5% 1/10W	1-533-230-11 HOLDER, FUSE ; F651			
R4373	1-216-295-00	CONDUCTOR, CHIP		<IC>			
R4375	1-216-295-00	CONDUCTOR, CHIP		IC651	8-759-426-45	IC TOP210pF1	
R4376	1-249-421-11	CARBON 2.2K	5% 1/4W	*****			
X4001	1-760-895-21	VIBRATOR, CERAMIC					
X4002	1-760-457-11	VIBRATOR, CRYSTAL (VCO)					
X4003	1-527-722-00	OSCILLATOR, CRYSTAL					
X4004	1-760-457-11	VIBRATOR, CRYSTAL (VCO)					
X4005	1-527-722-00	OSCILLATOR, CRYSTAL					
X4006	1-760-895-21	VIBRATOR, CERAMIC					



KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838



The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<COIL>				<CAPACITOR>			
L652	1-412-549-31	INDUCTOR	1mH	C1001	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
L653	1-412-549-31	INDUCTOR	1mH	C1002	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
<FILTER>				C1005	1-163-251-11	CERAMIC CHIP 100pF	5% 50V
LF651 $\Delta$	1-424-436-11	TRANSFORMER, LINE FILTER		C1006	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
LF652 $\Delta$	1-424-436-11	TRANSFORMER, LINE FILTER		C1007	1-163-038-00	CERAMIC CHIP 0.1MF	25V
<TRANSISTOR>				C1008	1-126-967-11	ELECT 47MF	20% 16V
Q651	8-729-034-00	TRANSISTOR 2SA1282ATP-EF		C1009	1-126-967-11	ELECT 47MF	20% 16V
Q652	8-729-029-67	TRANSISTOR DTC114ESA-TP		C1010	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
<RESISTOR>				C1011	1-124-925-11	ELECT 2.2MF	20% 50V
R651 $\Delta$	1-244-945-91	CARBON	1M 5% 1/2W	C1012	1-124-925-11	ELECT 2.2MF	20% 50V
R652 $\Delta$	1-202-961-11	WIREWOUND	1.8 5% 10W	C1013	1-124-925-11	ELECT 2.2MF	20% 50V
R653 $\Delta$	1-202-961-11	WIREWOUND	1.8 5% 10W	C1014	1-126-965-11	ELECT 22MF	20% 50V
R654	1-211-771-11	FUSIBLE	4.7 5% 1/4W F	C1015	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R656	1-247-791-91	CARBON	22 5% 1/4W	C1016	1-126-923-11	ELECT 220MF	20% 10V
R659	1-249-421-11	CARBON	2.2K 5% 1/4W	C1020	1-163-251-11	CERAMIC CHIP 100pF	5% 50V
R662 $\Delta$	1-218-265-21	METAL	8.2M 5% 1W	C1022	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
<RELAY>				C1023	1-126-967-11	ELECT 47MF	20% 16V
RY651 $\Delta$	1-755-018-11	RELAY		C1024	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
<TRANSFORMER>				C1026	1-124-925-11	ELECT 2.2MF	20% 50V
T651 $\Delta$	1-429-808-11	TRANSFORMER, CONVERTER		C1028	1-124-925-11	ELECT 2.2MF	20% 50V
*****				C1029	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V
* A-1241-256-A F1 BOARD, COMPLETE				C1030	1-126-967-11	ELECT 47MF	20% 16V
*****				C1031	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
<CONNECTOR>				C1032	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
CN8031*	1-564-518-11	PLUG, CONNECTOR 3P		C1033	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
<SWITCH>				C1034	1-126-967-11	ELECT 47MF	20% 16V
S8031 $\Delta$	1-570-826-11	SWITCH, PUSH (1 KEY) [MAIN]		C1035	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
*****				C1036	1-126-934-11	ELECT 220MF	20% 16V
* A-1297-874-A A BOARD, COMPLETE				C1038	1-126-967-11	ELECT 47MF	20% 16V
*****				C1039	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
4-202-373-01	SPRING, IC (IC1028, IC1029, IC1033)			C1040	1-126-967-11	ELECT 47MF	20% 16V
4-382-854-11	SCREW (M3X10), P, SW (+)			C1041	1-126-967-11	ELECT 47MF	20% 16V
	(IC1035, Q1034)			C1042	1-126-967-11	ELECT 47MF	20% 16V
				C1043	1-126-967-11	ELECT 47MF	20% 16V
				C1044	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C1045	1-126-923-11	ELECT 220MF	20% 10V
				C1046	1-126-967-11	ELECT 47MF	20% 16V
				C1047	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C1048	1-126-967-11	ELECT 47MF	20% 16V
				C1052	1-126-967-11	ELECT 47MF	20% 16V
				C1053	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1054	1-126-967-11	ELECT 47MF	20% 16V
				C1055	1-126-964-11	ELECT 10MF	20% 50V
				C1056	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C1057	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1058	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1059	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1060	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1061	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1062	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1066	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
				C1069	1-126-964-11	ELECT 10MF	20% 50V
				C1070	1-126-964-11	ELECT 10MF	20% 50V
				C1071	1-126-964-11	ELECT 10MF	20% 50V
				C1072	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C1074	1-163-237-11	CERAMIC CHIP 27pF	5% 50V	C1137	1-163-229-11	CERAMIC CHIP 12pF	5% 50V
C1075	1-163-245-11	CERAMIC CHIP 56pF	5% 50V	C1142	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
C1076	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C1143	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1078	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	C1147	1-126-967-11	ELECT 47MF	20% 16V
C1079	1-164-346-11	CERAMIC CHIP 1MF	16V				
C1080	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C1148	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C1081	1-164-346-11	CERAMIC CHIP 1MF	16V	C1150	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1083	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C1151	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1084	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C1152	1-126-967-11	ELECT 47MF	20% 16V
C1085	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C1157	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1087	1-126-967-11	ELECT 47MF	20% 16V	C1158	1-126-967-11	ELECT 47MF	20% 16V
C1088	1-126-967-11	ELECT 47MF	20% 16V	C1159	1-126-967-11	ELECT 47MF	20% 16V
C1089	1-126-967-11	ELECT 47MF	20% 16V	C1162	1-126-967-11	ELECT 47MF	20% 16V
C1090	1-126-967-11	ELECT 47MF	20% 16V	C1163	1-126-967-11	ELECT 47MF	20% 16V
C1091	1-124-903-11	ELECT 1MF	20% 50V	C1164	1-126-967-11	ELECT 47MF	20% 16V
C1092	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C1165	1-126-967-11	ELECT 47MF	20% 16V
C1093	1-124-903-11	ELECT 1MF	20% 50V	C1166	1-126-967-11	ELECT 47MF	20% 16V
C1094	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1167	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1095	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C1168	1-124-925-11	ELECT 2.2MF	20% 50V
C1096	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C1169	1-126-965-11	ELECT 22MF	20% 50V
C1097	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C1170	1-124-903-11	ELECT 1MF	20% 50V
C1098	1-126-934-11	ELECT 220MF	20% 16V	C1171	1-136-165-00	FILM 0.1MF	5% 50V
C1101	1-163-131-00	CERAMIC CHIP 390pF	5% 50V	C1172	1-110-495-11	ELECT 220MF	20% 25V
C1102	1-163-227-11	CERAMIC CHIP 10pF	0.5pF 50V	C1173	1-110-495-11	ELECT 220MF	20% 25V
C1104	1-126-964-11	ELECT 10MF	20% 50V	C1174	1-136-165-00	FILM 0.1MF	5% 50V
C1105	1-126-964-11	ELECT 10MF	20% 50V	C1175	1-126-967-11	ELECT 47MF	20% 16V
C1106	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1176	1-124-563-11	ELECT 2200MF	20% 25V
C1107	1-126-967-11	ELECT 47MF	20% 16V	C1177	1-124-563-11	ELECT 2200MF	20% 25V
C1108	1-126-964-11	ELECT 10MF	20% 50V	C1178	1-126-041-11	ELECT 2200MF	20% 35V
C1110	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C1179	1-124-925-11	ELECT 2.2MF	20% 50V
C1111	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	C1180	1-136-165-00	FILM 0.1MF	5% 50V
C1112	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	C1181	1-126-967-11	ELECT 47MF	20% 16V
C1113	1-163-137-00	CERAMIC CHIP 680pF	5% 50V	C1182	1-126-967-11	ELECT 47MF	20% 16V
C1114	1-126-967-11	ELECT 47MF	20% 16V	C1183	1-124-903-11	ELECT 1MF	20% 50V
C1115	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C1184	1-126-965-11	ELECT 22MF	20% 50V
C1116	1-126-967-11	ELECT 47MF	20% 16V	C1185	1-126-967-11	ELECT 47MF	20% 16V
C1117	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1186	1-126-967-11	ELECT 47MF	20% 16V
C1118	1-126-967-11	ELECT 47MF	20% 16V	C1187	1-137-371-11	FILM 0.015MF	5% 50V
C1119	1-126-967-11	ELECT 47MF	20% 16V	C1188	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C1120	1-163-137-00	CERAMIC CHIP 680pF	5% 50V	C1189	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C1121	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	C1190	1-126-967-11	ELECT 47MF	20% 16V
C1122	1-126-967-11	ELECT 47MF	20% 16V	C1191	1-137-371-11	FILM 0.015MF	5% 50V
C1123	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1192	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C1124	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1193	1-126-967-11	ELECT 47MF	20% 16V
C1125	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1194	1-137-372-11	FILM 0.022MF	5% 50V
C1126	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C1195	1-124-925-11	ELECT 2.2MF	20% 50V
C1127	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C1196	1-124-925-11	ELECT 2.2MF	20% 50V
C1128	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V	C1197	1-137-372-11	FILM 0.022MF	5% 50V
C1129	1-164-336-11	CERAMIC CHIP 0.33MF	25V	C1198	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C1130	1-124-903-11	ELECT 1MF	20% 50V	C1199	1-126-967-11	ELECT 47MF	20% 16V
C1131	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1200	1-136-165-00	FILM 0.1MF	5% 50V
C1132	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1201	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C1133	1-126-967-11	ELECT 47MF	20% 16V	C1202	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C1134	1-126-964-11	ELECT 10MF	20% 50V	C1203	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C1135	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C1204	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C1136	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1205	1-126-964-11	ELECT 10MF	20% 50V
				C1206	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C1207	1-137-613-11	FILM 0.0018MF	2% 100V	C1266	1-126-933-11	ELECT 100MF	20% 16V
C1208	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1267	1-126-964-11	ELECT 10MF	20% 50V
C1209	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V				
C1210	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1268	1-126-933-11	ELECT 100MF	20% 16V
C1211	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1269	1-126-964-11	ELECT 10MF	20% 50V
C1212	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1270	1-126-964-11	ELECT 10MF	20% 50V
C1213	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1271	1-136-165-00	FILM 0.1MF	5% 50V
C1214	1-126-967-11	ELECT 47MF	20% 16V	C1272	1-126-964-11	ELECT 10MF	20% 50V
C1215	1-126-967-11	ELECT 47MF	20% 16V	C1278	1-126-964-11	ELECT 10MF	20% 50V
C1216	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	C1279	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1217	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	C1280	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1218	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C1281	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1219	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C1282	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1222	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1283	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1223	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1284	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1224	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1285	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1225	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C1286	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1226	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C1287	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1227	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C1288	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1228	1-124-925-11	ELECT 2.2MF	20% 50V	C1289	1-126-964-11	ELECT 10MF	20% 50V
C1229	1-124-925-11	ELECT 2.2MF	20% 50V	C1290	1-126-964-11	ELECT 10MF	20% 50V
C1230	1-136-177-00	FILM 1MF	5% 50V	C1291	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1231	1-136-177-00	FILM 1MF	5% 50V	C1304	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C1232	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C1305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1233	1-163-007-11	CERAMIC CHIP 680pF	10% 50V	C1306	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C1234	1-126-964-11	ELECT 10MF	20% 50V	C1307	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C1236	1-164-348-11	CERAMIC CHIP 0.12MF	10% 25V	C1311	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1237	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1312	1-126-967-11	ELECT 47MF	20% 16V
C1238	1-163-986-00	CERAMIC CHIP 0.027MF	10% 25V	C1313	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C1239	1-163-986-00	CERAMIC CHIP 0.027MF	10% 25V	C1314	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1240	1-163-022-00	CERAMIC CHIP 0.012MF	10% 50V	C1315	1-126-967-11	ELECT 47MF	20% 16V
C1241	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C1316	1-163-125-00	CERAMIC CHIP 220pF	5% 50V
C1242	1-163-014-00	CERAMIC CHIP 0.0027MF	5% 50V	C1317	1-163-251-11	CERAMIC CHIP 100pF	5% 50V
C1243	1-163-014-00	CERAMIC CHIP 0.0027MF	5% 50V	C1319	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1244	1-163-010-11	CERAMIC CHIP 0.0012MF	10% 50V	C1320	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1245	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C1321	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1246	1-126-965-11	ELECT 22MF	20% 50V	C1322	1-163-243-11	CERAMIC CHIP 47pF	5% 50V
C1247	1-126-933-11	ELECT 100MF	20% 16V	C1323	1-126-964-11	ELECT 10MF	20% 50V
C1248	1-164-348-11	CERAMIC CHIP 0.12MF	10% 25V	C1324	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1249	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1325	1-126-933-11	ELECT 100MF	20% 16V
C1250	1-163-986-00	CERAMIC CHIP 0.027MF	10% 25V	C1326	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1251	1-163-986-00	CERAMIC CHIP 0.027MF	10% 25V	C1328	1-126-964-11	ELECT 10MF	20% 50V
C1252	1-163-022-00	CERAMIC CHIP 0.012MF	10% 50V	C1329	1-124-903-11	ELECT 1MF	20% 50V
C1253	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C1330	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1254	1-163-014-00	CERAMIC CHIP 0.0027MF	5% 50V	C1331	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1255	1-163-014-00	CERAMIC CHIP 0.0027MF	5% 50V	C1332	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1256	1-163-010-11	CERAMIC CHIP 0.0012MF	10% 50V	C1333	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1257	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C1334	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1258	1-136-165-00	FILM 0.1MF	5% 50V	C1335	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1259	1-126-964-11	ELECT 10MF	20% 50V	C1336	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1260	1-137-372-11	FILM 0.022MF	5% 50V	C1337	1-126-923-11	ELECT 220MF	20% 10V
C1261	1-137-372-11	FILM 0.022MF	5% 50V	C1338	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1262	1-137-371-11	FILM 0.015MF	5% 50V	C1339	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1263	1-130-489-00	FILM 0.033MF	5% 50V	C1340	1-163-251-11	CERAMIC CHIP 100pF	5% 50V
C1264	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C1341	1-124-902-00	ELECT 0.47MF	20% 50V
C1265	1-126-952-11	ELECT 1000MF	20% 16V	C1342	1-164-346-11	CERAMIC CHIP 1MF	16V
				C1343	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C1344	1-124-925-11	ELECT 2.2MF	20% 50V	C1439	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1345	1-126-965-11	ELECT 22MF	20% 50V	<OSILLATOR>			
C1346	1-164-222-11	CERAMIC CHIP 0.22MF	25V				
C1347	1-164-222-11	CERAMIC CHIP 0.22MF	25V	CD1001	1-527-992-31	OSCILLATOR, CERAMIC	
C1352	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	<FILTER>			
C1353	1-163-251-11	CERAMIC CHIP 100pF	5% 50V				
C1355	1-163-113-00	CERAMIC CHIP 68pF	5% 50V	CF1001	1-760-416-21	FILTER, CERAMIC	
C1356	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	CF1002	1-760-449-11	FILTER, CERAMIC	
C1358	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	CF1003	1-760-571-21	FILTER, CERAMIC	
C1359	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	CF1004	1-760-415-21	FILTER, CERAMIC	
C1363	1-163-038-00	CERAMIC CHIP 0.1MF	25V	CF1005	1-760-450-21	FILTER, CERAMIC	
C1365	1-126-965-11	ELECT 22MF	20% 50V				
C1367	1-126-933-11	ELECT 100MF	20% 16V	CF1006	1-760-571-21	FILTER, CERAMIC	
C1368	1-164-346-11	CERAMIC CHIP 1MF	16V	CF1007	1-760-415-21	FILTER, CERAMIC	
C1369	1-163-031-11	CERAMIC CHIP 0.01MF	50V	CF1008	1-760-450-21	FILTER, CERAMIC	
C1372	1-163-235-11	CERAMIC CHIP 22pF	5% 50V	<CONNECTOR>			
C1373	1-163-235-11	CERAMIC CHIP 22pF	5% 50V				
C1375	1-163-038-00	CERAMIC CHIP 0.1MF	25V	CN002	1-695-915-11	TAB (CONTACT)	
C1376	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	CN0806	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
C1377	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	CN1001*	1-564-505-11	PLUG, CONNECTOR 2P	
C1378	1-164-346-11	CERAMIC CHIP 1MF	16V	CN1002*	1-564-520-11	PLUG, CONNECTOR 5P	
C1382	1-164-346-11	CERAMIC CHIP 1MF	16V	CN1003*	1-564-513-11	PLUG, CONNECTOR 10P	
C1384	1-164-346-11	CERAMIC CHIP 1MF	16V				
C1385	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	CN1004*	1-564-508-11	PLUG, CONNECTOR 5P	
C1387	1-164-222-11	CERAMIC CHIP 0.22MF	25V	CN1008*	1-564-506-11	PLUG, CONNECTOR 3P	
C1389	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	CN1009*	1-564-510-11	PLUG, CONNECTOR 7P	
C1390	1-126-923-11	ELECT 220MF	20% 10V	CN1019	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
C1391	1-126-965-11	ELECT 22MF	20% 50V	CN1021*	1-564-509-11	PLUG, CONNECTOR 6P	
C1392	1-163-251-11	CERAMIC CHIP 100pF	5% 50V				
C1394	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	CN1023*	1-564-506-11	PLUG, CONNECTOR 3P	
C1397	1-126-952-11	ELECT 1000MF	20% 16V	CN1024*	1-564-507-11	PLUG, CONNECTOR 4P	
C1398	1-126-967-11	ELECT 47MF	20% 16V	CN1025*	1-564-506-11	PLUG, CONNECTOR 3P	
C1399	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	CN1031*	1-564-510-11	PLUG, CONNECTOR 7P	
C1402	1-163-113-00	CERAMIC CHIP 68pF	5% 50V	CN1032*	1-564-512-11	PLUG, CONNECTOR 9P	
C1403	1-126-964-11	ELECT 10MF	20% 50V				
C1407	1-107-701-11	ELECT 47MF	20% 16V	CN1301*	1-564-513-11	PLUG, CONNECTOR 10P	
C1408	1-126-933-11	ELECT 100MF	20% 16V	CN1302*	1-564-512-11	PLUG, CONNECTOR 9P	
C1409	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	CN1303*	1-564-506-11	PLUG, CONNECTOR 3P	
C1410	1-164-346-11	CERAMIC CHIP 1MF	16V	CN4002	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
C1411	1-163-078-11	CERAMIC CHIP 0.033MF	10% 25V	<DIODE>			
C1412	1-165-321-11	CERAMIC CHIP 0.68MF	10% 16V				
C1415	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D1001	8-719-914-43	DIODE DAN202K	
C1416	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D1002	8-719-914-42	DIODE DA204K	
C1417	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D1003	8-719-914-44	DIODE DAP202K	
C1420	1-164-346-11	CERAMIC CHIP 1MF	16V	D1004	8-719-982-27	DIODE MTZJ-33C	
C1421	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D1007	8-719-110-73	DIODE RD30ESB3	
C1422	1-163-031-11	CERAMIC CHIP 0.01MF	50V				
C1423	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D1008	8-719-110-73	DIODE RD30ESB3	
C1424	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D1009	8-719-914-43	DIODE DAN202K	
C1427	1-164-695-11	CERAMIC CHIP 0.0022MF	5% 50V	D1010	8-719-914-43	DIODE DAN202K	
C1428	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D1011	8-719-914-43	DIODE DAN202K	
C1430	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D1012	8-719-404-49	DIODE MA111	
C1431	1-126-963-11	ELECT 4.7MF	20% 50V				
C1432	1-124-925-11	ELECT 2.2MF	20% 50V	D1013	8-719-801-78	DIODE 1SS184	
C1433	1-124-925-11	ELECT 2.2MF	20% 50V	D1014	8-719-914-43	DIODE DAN202K	
C1434	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D1015	8-719-914-43	DIODE DAN202K	
				D1018	8-719-914-44	DIODE DAP202K	
				D1019	8-719-914-43	DIODE DAN202K	

KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D1020	8-719-914-44	DIODE DAP202K		IC1023	8-759-378-21	IC ST24C16FB6	
D1021	8-719-109-89	DIODE RD5.6ESB2		IC1024	8-759-248-91	IC SDA9086-5	
D1022	8-719-109-89	DIODE RD5.6ESB2		IC1025	8-759-502-21	IC TDA2822M	
D1024	8-719-036-58	DIODE MA3030-H (TX)		IC1026	8-759-909-71	IC BA4558F	
D1026	8-719-914-43	DIODE DAN202K		IC1027	8-759-909-71	IC BA4558F	
D1027	8-719-914-42	DIODE DA204K		IC1028	8-759-980-43	IC TDA2009A	
D1101	8-719-914-43	DIODE DAN202K		IC1029	8-759-980-43	IC TDA2009A	
D1102	8-719-820-71	DIODE 1SV214		IC1030	8-752-072-88	IC CXA2011Q	
D1103	8-719-914-43	DIODE DAN202K		IC1031	8-752-058-68	IC CXA1315M	
D1104	8-719-914-43	DIODE DAN202K		IC1032	8-752-070-54	IC CXA1839Q-T6	
D1105	8-719-914-43	DIODE DAN202K		IC1033	8-759-701-59	IC NJM78M09FA	
D1106	8-719-914-43	DIODE DAN202K		IC1035	8-759-513-71	IC PQ05RF21	
<FERRITE BEAD>				IC1036	8-759-908-15	IC TL431CLP	
FB1001	1-216-296-00	CONDUCTOR, CHIP		IC1041	8-759-259-18	IC MB3793-42PNF	
FB1002	1-216-296-00	CONDUCTOR, CHIP		IC1042	8-759-034-48	IC MC74F02M-T2	
FB1003	1-543-813-21	FILTER, EMI		IC1043	8-759-054-12	IC PQ09RA1	
FB1004	1-216-296-00	CONDUCTOR, CHIP		<CHIP CONDUCTOR>			
FB1005	1-216-296-00	CONDUCTOR, CHIP		JR1006	1-216-295-00	CONDUCTOR, CHIP	
FB1006	1-543-813-21	FILTER, EMI		JR1007	1-216-295-00	CONDUCTOR, CHIP	
FB1007	1-543-813-21	FILTER, EMI		JR1016	1-216-295-00	CONDUCTOR, CHIP	
FB1008	1-543-813-21	FILTER, EMI		JR1017	1-216-295-00	CONDUCTOR, CHIP	
FB1009	1-216-296-00	CONDUCTOR, CHIP		JR1020	1-216-295-00	CONDUCTOR, CHIP	
FB1010	1-543-813-21	FILTER, EMI		JR1026	1-216-295-00	CONDUCTOR, CHIP	
FB1011	1-543-813-21	FILTER, EMI		JR1029	1-216-295-00	CONDUCTOR, CHIP	
FB1012	1-543-813-21	FILTER, EMI		JR1030	1-216-295-00	CONDUCTOR, CHIP	
<FILTER>				JR1031	1-216-295-00	CONDUCTOR, CHIP	
FL1004	1-408-409-00	INDUCTOR 10UH		JR1032	1-216-295-00	CONDUCTOR, CHIP	
FL1005	1-408-409-00	INDUCTOR 10UH		JR1033	1-216-295-00	CONDUCTOR, CHIP	
FL1006	1-408-607-31	INDUCTOR 22UH		JR1118	1-216-295-00	CONDUCTOR, CHIP	
FL1007	1-236-071-11	ENCAPSULATED COMPONENT		<COIL>			
FL1008	1-216-158-00	METAL GLAZE 22 5% 1/8W		L1003	1-408-421-00	INDUCTOR 100UH	
<IC>				L1004	1-408-419-00	INDUCTOR 68UH	
IC1001	8-752-878-81	IC CXP852P32AQ-1-012		L1005	1-407-500-00	INDUCTOR 4.7mH	
IC1003	8-759-514-57	IC BA7046F		L1006	1-408-419-00	INDUCTOR 68UH	
IC1004	8-759-520-85	IC TDA9820T-T		L1007	1-408-421-00	INDUCTOR 100UH	
IC1005	8-759-520-85	IC TDA9820T-T		L1008	1-408-421-00	INDUCTOR 100UH	
IC1006	8-759-710-86	IC NJM2233BM		L1010	1-408-397-00	INDUCTOR 1UH	
IC1007	8-759-708-05	IC NJM78L05A		L1011	1-408-419-00	INDUCTOR 68UH	
IC1009	8-759-710-86	IC NJM2233BM		L1012	1-408-409-00	INDUCTOR 10UH	
IC1010	8-752-067-36	IC CXA1815S		L1013	1-408-416-00	INDUCTOR 39UH	
IC1012	8-752-072-94	IC CXA1875AM-T4		L1014	1-408-421-00	INDUCTOR 100UH	
IC1013	8-759-251-58	IC SAA7283GP		L1016	1-408-421-00	INDUCTOR 100UH	
IC1014	8-759-085-51	IC NJM2284M		L1019	1-408-412-00	INDUCTOR 18UH	
IC1015	8-759-348-87	IC TDA6812-2MGEG		L1020	1-408-409-00	INDUCTOR 10UH	
IC1017	8-759-909-71	IC BA4558F		L1021	1-408-607-31	INDUCTOR 22UH	
IC1018	8-759-257-64	IC TDA7317		L1022	1-408-607-31	INDUCTOR 22UH	
IC1019	8-759-351-92	IC SDA30C164-GEG		L1023	1-408-607-31	INDUCTOR 22UH	
IC1020	8-759-337-48	IC SDA5273P-C26-GEG		L1025	1-408-421-00	INDUCTOR 100UH	
IC1021	1-750-797-11	SOCKET, PLCC		L1026	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
IC1021	8-759-436-12	IC TMS27PC020-15FMLLE101		L1027	1-408-419-00	INDUCTOR 68UH	
IC1022	8-759-188-60	IC MB81C4256A-70PSZG		L1028	1-408-607-31	INDUCTOR 22UH	
				L1101	1-412-004-31	INDUCTOR CHIP 6.8UH	



The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
L1102	1-408-419-00	INDUCTOR	68UH	Q1052	8-729-900-53	TRANSISTOR DTC114EK	
L1104	1-408-421-00	INDUCTOR	100UH	Q1053	8-729-920-74	TRANSISTOR 2SC2412K-QR	
<IC LINK>				Q1059	8-729-027-31	TRANSISTOR DTA124EKA-T146	
PS1001	$\Delta$ 1-532-637-91	LINK, IC 1A/150V		Q1060	8-729-027-52	TRANSISTOR DTC124EKA-T146	
PS1002	$\Delta$ 1-532-984-91	LINK, IC 2A/90V		Q1061	8-729-027-52	TRANSISTOR DTC124EKA-T146	
PS1003	$\Delta$ 1-532-984-91	LINK, IC 2A/90V		Q1062	8-729-027-59	TRANSISTOR DTC144EKA-T146	
<TRANSISTOR>				Q1064	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q1001	8-729-027-59	TRANSISTOR DTC144EKA-T146		Q1065	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1003	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1066	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1004	8-729-027-59	TRANSISTOR DTC144EKA-T146		Q1067	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1005	8-729-027-59	TRANSISTOR DTC144EKA-T146		Q1068	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1007	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1069	8-729-900-53	TRANSISTOR DTC114EK	
Q1008	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1070	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q1011	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1071	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q1012	8-729-027-59	TRANSISTOR DTC144EKA-T146		Q1072	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q1013	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1076	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1014	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1077	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1015	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1078	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1016	8-729-216-22	TRANSISTOR 2SA1162-G		Q1079	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1017	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1105	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1018	8-729-216-22	TRANSISTOR 2SA1162-G		Q1106	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1019	8-729-216-22	TRANSISTOR 2SA1162-G		Q1107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1020	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1108	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1021	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1109	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1022	8-729-216-22	TRANSISTOR 2SA1162-G		Q1110	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1024	8-729-216-22	TRANSISTOR 2SA1162-G		Q1112	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1025	8-729-216-22	TRANSISTOR 2SA1162-G		Q1114	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1026	8-729-216-22	TRANSISTOR 2SA1162-G		Q1115	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1027	8-729-216-22	TRANSISTOR 2SA1162-G		Q1116	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1028	8-729-216-22	TRANSISTOR 2SA1162-G		Q1117	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1029	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1118	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1030	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1119	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1031	8-729-920-74	TRANSISTOR 2SC2412K-QR		Q1120	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1032	8-729-216-22	TRANSISTOR 2SA1162-G		<RESISTOR>			
Q1033	8-729-216-22	TRANSISTOR 2SA1162-G		R1001	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q1034	8-729-032-65	TRANSISTOR 2SD2396H		R1002	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q1035	8-729-920-74	TRANSISTOR 2SC2412K-QR		R1004	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q1036	8-729-920-74	TRANSISTOR 2SC2412K-QR		R1005	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q1037	8-729-920-74	TRANSISTOR 2SC2412K-QR		R1006	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q1038	8-729-920-74	TRANSISTOR 2SC2412K-QR		R1007	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q1039	8-729-920-74	TRANSISTOR 2SC2412K-QR		R1008	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q1040	8-729-216-22	TRANSISTOR 2SA1162-G		R1009	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q1042	8-729-216-22	TRANSISTOR 2SA1162-G		R1010	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q1043	8-729-216-22	TRANSISTOR 2SA1162-G		R1011	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q1044	8-729-216-22	TRANSISTOR 2SA1162-G		R1012	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q1045	8-729-216-22	TRANSISTOR 2SA1162-G		R1013	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q1046	8-729-403-27	TRANSISTOR XN4401		R1014	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q1047	8-729-920-74	TRANSISTOR 2SC2412K-QR		R1015	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q1048	8-729-920-74	TRANSISTOR 2SC2412K-QR		R1017	1-216-198-91	METAL GLAZE 1K	5% 1/8W
Q1049	8-729-216-22	TRANSISTOR 2SA1162-G		R1018	1-216-198-91	METAL GLAZE 1K	5% 1/8W
Q1050	8-729-402-84	TRANSISTOR XN4601		R1019	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q1051	8-729-402-84	TRANSISTOR XN4601		R1020	1-216-198-91	METAL GLAZE 1K	5% 1/8W
				R1021	1-216-295-00	CONDUCTOR, CHIP	
				R1022	1-216-025-00	METAL GLAZE 100	5% 1/10W



KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1023	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1095	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1024	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1096	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1025	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1097	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1026	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1098	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1027	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R1028	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1099	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1029	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1100	1-216-037-00	METAL GLAZE 330	5% 1/10W
R1030	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1101	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1034	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1102	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1035	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1103	1-216-134-00	METAL GLAZE 2.2	5% 1/8W
R1036	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1104	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R1037	1-216-295-00	CONDUCTOR, CHIP		R1105	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R1039	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R1106	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1040	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1107	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1041	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R1108	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R1042	1-216-689-11	METAL GLAZE 39K	5% 1/10W	R1109	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R1043	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1110	1-216-150-91	METAL GLAZE 10	5% 1/8W
R1044	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	R1111	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1045	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1112	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1046	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1113	1-216-117-00	METAL GLAZE 680K	5% 1/10W
R1048	1-249-417-11	CARBON 1K	5% 1/4W F	R1115	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R1051	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1116	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1052	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R1117	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1053	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1118	1-216-134-00	METAL GLAZE 2.2	5% 1/8W
R1054	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1121	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1055	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1122	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1056	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1123	1-216-101-00	METAL GLAZE 150K	5% 1/10W
R1057	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1124	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1058	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1125	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1059	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1126	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1060	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1127	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1061	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1128	1-216-101-00	METAL GLAZE 150K	5% 1/10W
R1062	1-216-295-00	CONDUCTOR, CHIP		R1129	1-216-119-00	METAL GLAZE 820K	5% 1/10W
R1063	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R1130	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1064	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1131	1-216-037-00	METAL GLAZE 330	5% 1/10W
R1066	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1132	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1067	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1133	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1068	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1134	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1070	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1135	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1071	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1138	1-216-043-91	METAL GLAZE 560	5% 1/10W
R1072	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1139	1-216-037-00	METAL GLAZE 330	5% 1/10W
R1073	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1140	1-216-037-00	METAL GLAZE 330	5% 1/10W
R1074	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1141	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1075	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1144	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1076	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1145	1-216-001-00	METAL GLAZE 10	5% 1/10W
R1077	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R1146	1-216-045-00	METAL GLAZE 680	5% 1/10W
R1078	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R1147	1-216-039-00	METAL GLAZE 390	5% 1/10W
R1079	1-218-755-11	METAL CHIP 130K	0.50% 1/10W	R1148	1-216-045-00	METAL GLAZE 680	5% 1/10W
R1080	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R1149	1-216-001-00	METAL GLAZE 10	5% 1/10W
R1081	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1150	1-216-039-00	METAL GLAZE 390	5% 1/10W
R1082	1-216-107-00	METAL GLAZE 270K	5% 1/10W	R1151	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1084	1-216-639-11	METAL CHIP 330	0.50% 1/10W	R1152	1-216-041-00	METAL GLAZE 470	5% 1/10W
R1086	1-208-784-11	METAL CHIP 1.2K	0.50% 1/10W	R1153	1-216-041-00	METAL GLAZE 470	5% 1/10W
R1089	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1154	1-216-041-00	METAL GLAZE 470	5% 1/10W
R1092	1-216-646-11	METAL CHIP 620	0.50% 1/10W	R1155	1-216-295-00	CONDUCTOR, CHIP	
R1094	1-216-651-11	METAL CHIP 1K	0.50% 1/10W	R1156	1-216-295-00	CONDUCTOR, CHIP	
				R1157	1-216-295-00	CONDUCTOR, CHIP	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1158	1-249-419-11	CARBON 1.5K	5% 1/4W	R1222	1-249-389-11	CARBON 4.7	5% 1/4W F
R1159	1-247-807-31	CARBON 100	5% 1/4W	R1223	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R1160	1-216-651-11	METAL CHIP 1K	0.50%1/10W				
R1161	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R1224	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W
R1162	1-216-295-00	CONDUCTOR, CHIP		R1225	1-249-385-11	CARBON 2.2	5% 1/4W F
R1163	1-216-655-11	METAL CHIP 1.5K	0.50%1/10W	R1226	1-216-613-11	METAL CHIP 27	0.50%1/10W
R1164	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R1227	1-216-613-11	METAL CHIP 27	0.50%1/10W
R1165	1-216-295-00	CONDUCTOR, CHIP		R1228	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W
R1166	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1229	1-216-651-11	METAL CHIP 1K	0.50%1/10W
R1167	1-216-295-00	CONDUCTOR, CHIP		R1230	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R1169	1-216-043-91	METAL GLAZE 560	5% 1/10W	R1231	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R1170	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R1232	1-249-421-11	CARBON 2.2K	5% 1/4W
R1171	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R1233	1-249-421-11	CARBON 2.2K	5% 1/4W
R1172	1-216-295-00	CONDUCTOR, CHIP		R1234	1-216-671-11	METAL CHIP 6.8K	0.50%1/10W
R1173	1-216-655-11	METAL CHIP 1.5K	0.50%1/10W	R1235	1-216-651-11	METAL CHIP 1K	0.50%1/10W
R1174	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R1236	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R1175	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1237	1-208-806-11	METAL CHIP 10K	0.50%1/10W
R1176	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1238	1-216-673-11	METAL CHIP 8.2K	0.50%1/10W
R1177	1-216-001-00	METAL GLAZE 10	5% 1/10W	R1239	1-208-822-11	METAL CHIP 47K	0.50%1/10W
R1178	1-216-023-00	METAL GLAZE 82	5% 1/10W	R1240	1-208-822-11	METAL CHIP 47K	0.50%1/10W
R1179	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1241	1-216-107-00	METAL GLAZE 270K	5% 1/10W
R1180	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1242	1-208-824-11	METAL CHIP 56K	0.50%1/10W
R1181	1-249-407-11	CARBON 150	5% 1/4W	R1243	1-216-685-11	METAL CHIP 27K	0.50%1/10W
R1182	1-216-041-00	METAL GLAZE 470	5% 1/10W	R1244	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1183	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W	R1245	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1184	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W	R1246	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1185	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W	R1247	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1186	1-216-615-11	METAL CHIP 33	0.50%1/10W	R1248	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1187	1-216-615-11	METAL CHIP 33	0.50%1/10W	R1249	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1188	1-249-389-11	CARBON 4.7	5% 1/4W F	R1250	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1189	1-249-389-11	CARBON 4.7	5% 1/4W F	R1251	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1190	1-249-421-11	CARBON 2.2K	5% 1/4W	R1252	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1191	1-249-421-11	CARBON 2.2K	5% 1/4W	R1253	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1192	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1254	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1193	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1255	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1194	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1256	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1196	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R1257	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1197	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R1258	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1198	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R1259	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1199	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1260	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1200	1-249-385-11	CARBON 2.2	5% 1/4W F	R1261	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1201	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W	R1262	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1203	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W	R1263	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1205	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R1264	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1206	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1265	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1207	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1266	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1208	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1267	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1209	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1268	1-216-295-00	CONDUCTOR, CHIP	
R1210	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1269	1-216-295-00	CONDUCTOR, CHIP	
R1211	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	R1270	1-216-295-00	CONDUCTOR, CHIP	
R1212	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1271	1-216-295-00	CONDUCTOR, CHIP	
R1213	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1272	1-208-824-11	METAL CHIP 56K	0.50%1/10W
R1214	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1273	1-216-685-11	METAL CHIP 27K	0.50%1/10W
R1218	1-249-389-11	CARBON 4.7	5% 1/4W F	R1274	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1219	1-249-389-11	CARBON 4.7	5% 1/4W F	R1275	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1221	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R1276	1-216-077-00	METAL GLAZE 15K	5% 1/10W
				R1277	1-216-085-00	METAL GLAZE 33K	5% 1/10W

KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1278	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R1337	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1279	1-260-107-11	CARBON 4.7K	5% 1/2W	R1338	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1280	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R1339	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1281	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1340	1-216-041-00	METAL GLAZE 470	5% 1/10W
R1282	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1341	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1283	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R1342	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1284	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R1343	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1285	1-216-651-11	METAL CHIP 1K	0.50%1/10W	R1344	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1286	1-249-394-11	CARBON 12	5% 1/4W F	R1345	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1287	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1346	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1290	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1347	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1291	1-216-222-00	METAL GLAZE 10K	5% 1/8W	R1348	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1292	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1349	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1293	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1350	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R1294	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1351	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1295	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1352	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R1296	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R1353	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1297	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1354	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1298	1-216-031-00	METAL GLAZE 180	5% 1/10W	R1355	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R1299	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	R1356	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1300	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	R1358	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1301	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	R1359	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1302	1-216-031-00	METAL GLAZE 180	5% 1/10W	R1360	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1303	1-216-031-00	METAL GLAZE 180	5% 1/10W	R1361	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1304	1-208-806-11	METAL CHIP 10K	0.50%1/10W	R1362	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1305	1-208-806-11	METAL CHIP 10K	0.50%1/10W	R1363	1-216-035-00	METAL GLAZE 270	5% 1/10W
R1306	1-208-806-11	METAL CHIP 10K	0.50%1/10W	R1364	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1307	1-208-811-11	METAL CHIP 16K	0.50%1/10W	R1365	1-216-295-00	CONDUCTOR, CHIP	5% 1/10W
R1308	1-208-811-11	METAL CHIP 16K	0.50%1/10W	R1366	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1309	1-208-811-11	METAL CHIP 16K	0.50%1/10W	R1367	1-216-295-00	CONDUCTOR, CHIP	5% 1/10W
R1310	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1368	1-216-295-00	CONDUCTOR, CHIP	5% 1/10W
R1311	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1369	1-216-295-00	CONDUCTOR, CHIP	5% 1/10W
R1312	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1371	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1313	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1372	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1314	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1373	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1315	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1374	1-216-043-91	METAL GLAZE 560	5% 1/10W
R1316	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1375	1-216-043-91	METAL GLAZE 560	5% 1/10W
R1317	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1376	1-216-037-00	METAL GLAZE 330	5% 1/10W
R1318	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1377	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1319	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1378	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1320	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R1379	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1321	1-216-033-00	METAL GLAZE 220	5% 1/10W	R1380	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1322	1-216-033-00	METAL GLAZE 220	5% 1/10W	R1381	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1323	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1382	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1324	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1383	1-216-017-71	METAL GLAZE 47	5% 1/10W
R1325	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R1384	1-216-017-71	METAL GLAZE 47	5% 1/10W
R1326	1-216-041-00	METAL GLAZE 470	5% 1/10W	R1385	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1327	1-216-127-11	METAL GLAZE 1.8M	5% 1/10W	R1386	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1328	1-216-295-00	CONDUCTOR, CHIP	5% 1/10W	R1387	1-216-037-00	METAL GLAZE 330	5% 1/10W
R1329	1-216-295-00	CONDUCTOR, CHIP	5% 1/10W	R1388	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1330	1-216-677-11	METAL CHIP 12K	0.50%1/10W	R1389	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1331	1-216-677-11	METAL CHIP 12K	0.50%1/10W	R1401	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1332	1-216-677-11	METAL CHIP 12K	0.50%1/10W	R1402	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1333	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1403	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1334	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R1404	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
R1335	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1405	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W

The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1406	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1491	1-249-411-11	CARBON 330	5% 1/4W
R1408	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1494	1-216-295-00	CONDUCTOR, CHIP	
R1409	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1495	1-216-295-00	CONDUCTOR, CHIP	
R1410	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W				
R1412	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1498	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1413	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1499	1-216-041-00	METAL GLAZE 470	5% 1/10W
R1414	1-216-033-00	METAL GLAZE 220	5% 1/10W	R1503	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1415	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1504	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1416	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R1505	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1417	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1506	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1418	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1507	1-216-033-00	METAL GLAZE 220	5% 1/10W
R1419	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1508	1-216-295-00	CONDUCTOR, CHIP	
R1420	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1509	1-216-295-00	CONDUCTOR, CHIP	
R1421	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1512	1-216-295-00	CONDUCTOR, CHIP	
R1422	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1513	1-216-295-00	CONDUCTOR, CHIP	
R1423	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R1514	1-216-295-00	CONDUCTOR, CHIP	
R1424	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R1515	1-216-295-00	CONDUCTOR, CHIP	
R1425	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	R1516	1-216-033-00	METAL GLAZE 220	5% 1/10W
R1426	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R1517	1-216-295-00	CONDUCTOR, CHIP	
R1427	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1518	1-216-295-00	CONDUCTOR, CHIP	
R1429	1-216-041-00	METAL GLAZE 470	5% 1/10W	R1519	1-249-394-11	CARBON 12	5% 1/4W F
R1430	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1520	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1431	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1521	1-216-033-00	METAL GLAZE 220	5% 1/10W
R1432	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1522	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1433	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1523	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1434	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R1524	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1435	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1525	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1436	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1526	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1438	1-216-295-00	CONDUCTOR, CHIP		R1527	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1440	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R1528	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1443	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1529	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1444	1-216-041-00	METAL GLAZE 470	5% 1/10W	R1531	1-216-295-00	CONDUCTOR, CHIP	
R1445	1-216-041-00	METAL GLAZE 470	5% 1/10W	R1532	1-216-295-00	CONDUCTOR, CHIP	
R1446	1-216-025-00	METAL GLAZE 100	5% 1/10W	R1533	1-249-425-11	CARBON 4.7K	5% 1/4W
R1447	1-216-295-00	CONDUCTOR, CHIP		R1534	1-249-425-11	CARBON 4.7K	5% 1/4W
R1448	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R1535	1-249-425-11	CARBON 4.7K	5% 1/4W
R1449	1-216-049-00	METAL GLAZE 1K	5% 1/10W				
R1450	1-216-037-00	METAL GLAZE 330	5% 1/10W	<TEST PIN>			
R1451	1-216-093-00	METAL GLAZE 68K	5% 1/10W	TP1001	1-535-877-22	CHIP, CHECKER	
R1453	1-216-025-00	METAL GLAZE 100	5% 1/10W	TP1002	1-535-877-22	CHIP, CHECKER	
R1454	1-216-041-00	METAL GLAZE 470	5% 1/10W	TP1003	1-535-877-22	CHIP, CHECKER	
R1456	1-216-049-00	METAL GLAZE 1K	5% 1/10W	TP1004	1-537-864-11	PIN, POST	
R1458	1-216-295-00	CONDUCTOR, CHIP		TP1005	1-537-864-11	PIN, POST	
R1461	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	TP1006	1-537-864-11	PIN, POST	
R1463	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W				
R1464	1-216-017-71	METAL GLAZE 47	5% 1/10W	<TUNER>			
R1465	1-216-647-11	METAL CHIP 680	0.50% 1/10W	TU1001 $\Delta$	1-693-340-21	TUNER/VIF	
R1466	1-216-043-91	METAL GLAZE 560	5% 1/10W	TU1002 $\Delta$	1-693-340-21	TUNER/VIF	
R1467	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R1468	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	<CRYSTAL>			
R1469	1-208-774-11	METAL CHIP 470	0.50% 1/10W	X1001	1-577-082-11	VIBRATOR, CERAMIC	
R1470	1-216-049-00	METAL GLAZE 1K	5% 1/10W	X1002	1-760-551-21	VIBRATOR, CERAMIC	
R1484	1-216-295-00	CONDUCTOR, CHIP		X1101	1-579-689-21	VIBRATOR, CRYSTAL	
R1487	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R1488	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W				
R1489	1-216-627-11	METAL CHIP 100	0.50% 1/10W				



The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	* A-1311-494-A	G BOARD, COMPLETE *****		D611	8-719-911-19	DIODE 1SS119-25	
	4-382-854-11	SCREW (M3X10), P, SW (+) (D605, Q601, Q602)		D612	$\Delta$ 8-719-510-63	DIODE D4SB60L	
		<CAPACITOR>				<FERRITE BEAD>	
C601	1-125-483-11	ELECT (BLOCK)470MF	20% 400V	FB601	1-410-396-41	FERRITE BEAD INDUCTOR	0.45UH
C602	1-164-625-11	CERAMIC 680pF	10% 500V	FB602	1-410-396-41	FERRITE BEAD INDUCTOR	0.45UH
C603	1-164-625-11	CERAMIC 680pF	10% 500V			<IC>	
C604	1-136-173-00	FILM 0.47MF	5% 50V	IC601	8-759-908-15	IC TL431CLP	
C605	1-136-171-00	FILM 0.33MF	5% 50V			<COIL>	
C606	1-164-645-11	CERAMIC 1000pF	10% 500V	L602	1-412-519-11	INDUCTOR 3.3UH	
C607	1-136-173-00	FILM 0.47MF	5% 50V	L603	1-408-409-00	INDUCTOR 10UH	
C608	1-136-171-00	FILM 0.33MF	5% 50V	L604	1-412-519-11	INDUCTOR 3.3UH	
C609	1-129-718-00	FILM 0.022MF	5% 630V	L605	1-403-588-11	CIL, CHOKE 22UH	
C610	1-126-953-11	ELECT 2200MF	20% 35V	L606	1-412-519-11	INDUCTOR 3.3UH	
C611	1-126-964-11	ELECT 10MF	20% 50V			<TRANSISTOR>	
C612	1-126-942-61	ELECT 1000MF	20% 25V	Q601	8-729-026-69	TRANSISTOR 2SC4833-M1	
C613	1-126-964-11	ELECT 10MF	20% 50V	Q602	8-729-026-69	TRANSISTOR 2SC4833-M1	
C614	1-104-664-11	ELECT 47MF	20% 25V	Q603	8-729-026-41	TRANSISTOR 2SA933AS-QRT	
C615	1-102-129-00	CERAMIC 0.01MF	10% 50V			<RESISTOR>	
C616	1-102-129-00	CERAMIC 0.01MF	10% 50V	R601	1-247-891-00	CARBON 330K	5% 1/4W
C617	1-102-050-00	CERAMIC 0.01MF	500V	R602	1-247-891-00	CARBON 330K	5% 1/4W
C618	1-126-937-11	ELECT 4700MF	20% 16V	R603	1-247-881-00	CARBON 120K	5% 1/4W
C619	1-126-937-11	ELECT 4700MF	20% 16V	R604	1-247-881-00	CARBON 120K	5% 1/4W
C620	1-104-664-11	ELECT 47MF	20% 25V	R605	1-249-389-11	CARBON 4.7	5% 1/4W
C621	1-102-129-00	CERAMIC 0.01MF	10% 50V	R606	1-249-393-11	CARBON 10	5% 1/4W
C622	1-104-664-11	ELECT 47MF	20% 25V	R607	1-247-881-00	CARBON 120K	5% 1/4W
C623	1-102-129-00	CERAMIC 0.01MF	10% 50V	R608	1-247-881-00	CARBON 120K	5% 1/4W
C624	1-124-903-11	ELECT 1MF	20% 50V	R609	1-249-389-11	CARBON 4.7	5% 1/4W
C627	1-136-157-00	FILM 0.022MF	5% 50V	R610	1-249-393-11	CARBON 10	5% 1/4W
C628	1-136-161-00	FILM 0.047MF	5% 50V	R611	1-216-370-11	METAL OXIDE 1.2	5% 2W F
C629	1-126-967-11	ELECT 47MF	20% 50V	R617	1-202-933-61	FUSIBLE 0.1	10% 1/2W F
C630	1-102-050-00	CERAMIC 0.01MF	500V	R618	1-215-447-00	METAL 12K	1% 1/4W
		<CONNECTOR>		R619	1-249-435-11	CARBON 33K	5% 1/4W
CN6001*	1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P		R621	1-215-432-00	METAL 3K	1% 1/4W
CN6002	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P		R622	1-249-417-11	CARBON 1K	5% 1/4W
CN6003*	1-564-506-11	PLUG, CONNECTOR 3P		R623	1-247-807-31	CARBON 100	5% 1/4W
CN6004*	1-564-509-11	PLUG, CONNECTOR 6P		R624	1-249-425-11	CARBON 4.7K	5% 1/4W
CN6005*	1-564-512-11	PLUG, CONNECTOR 9P		R625	1-249-418-11	CARBON 1.2K	5% 1/4W
CN6006*	1-564-510-11	PLUG, CONNECTOR 7P				<TRANSFORMER>	
		<DIODE>		T601	$\Delta$ 1-429-839-11	TRANSFORMER, CONVERTER (PIT)	
D601	8-719-911-19	DIODE 1SS119-25		T602	$\Delta$ 1-427-864-13	TRANSFORMER, CONVERTER (PRT)	
D602	8-719-911-19	DIODE 1SS119-25					
D603	8-719-052-92	DIODE D10SBS4F					
D604	8-719-312-47	DIODE RBA-406B					
D605	8-719-052-92	DIODE D10SBS4F					
D606	8-719-110-41	DIODE RD15ESB2					
D607	8-719-911-19	DIODE 1SS119-25					
D608	8-719-911-19	DIODE 1SS119-25					
D610	8-719-911-19	DIODE 1SS119-25					



The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
* A-1335-072-A C BOARD, COMPLETE *****				C5201	1-165-319-11	CERAMIC CHIP 0.1MF	50V
<CAPACITOR>				C5202	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5001	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5203	1-104-664-11	ELECT 47MF	20% 25V
C5002	1-126-967-11	ELECT 47MF	20% 10V	C5204	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5003	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5205	1-126-967-11	ELECT 47MF	20% 10V
C5004	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C5206	1-126-967-11	ELECT 47MF	20% 16V
C5005	1-126-962-11	ELECT 3.3MF	20% 50V	C5207	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5006	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C5209	1-104-664-11	ELECT 47MF	20% 25V
C5007	1-163-104-00	CERAMIC CHIP 30pF	5% 50V	C5210	1-104-664-11	ELECT 47MF	20% 25V
C5008	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C5212	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5009	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5213	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5010	1-163-109-00	CERAMIC CHIP 47pF	5% 50V	C5214	1-104-664-11	ELECT 47MF	20% 25V
C5011	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C5215	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5012	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5216	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5013	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C5217	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5014	1-126-962-11	ELECT 3.3MF	20% 50V	C5218	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5015	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C5219	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5016	1-163-108-00	CERAMIC CHIP 43pF	5% 50V	C5220	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5017	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C5221	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5018	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5222	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5019	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C5223	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5020	1-126-962-11	ELECT 3.3MF	20% 50V	C5224	1-126-967-11	ELECT 47MF	20% 10V
C5021	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C5225	1-126-967-11	ELECT 47MF	20% 10V
C5022	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5226	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5023	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5227	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5024	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5228	1-104-664-11	ELECT 47MF	20% 25V
C5025	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5229	1-107-689-21	TANTAL. CHIP 1MF	20% 35V
C5026	1-126-967-11	ELECT 47MF	20% 10V	C5230	1-107-689-21	TANTAL. CHIP 1MF	20% 35V
C5027	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5231	1-107-689-21	TANTAL. CHIP 1MF	20% 35V
C5028	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5232	1-107-689-21	TANTAL. CHIP 1MF	20% 35V
C5029	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C5233	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5030	1-104-664-11	ELECT 47MF	20% 25V	C5234	1-126-964-11	ELECT 10MF	20% 50V
C5039	1-104-664-11	ELECT 47MF	20% 25V	C5235	1-104-664-11	ELECT 47MF	20% 25V
C5040	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5236	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5041	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5237	1-126-967-11	ELECT 47MF	20% 16V
C5042	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5238	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5043	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5241	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5044	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5242	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5045	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5243	1-126-967-11	ELECT 47MF	20% 16V
C5046	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5244	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C5047	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5245	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5048	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5246	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5049	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5247	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5050	1-163-251-11	CERAMIC CHIP 100pF	5% 50V	C5248	1-126-967-11	ELECT 47MF	20% 16V
C5051	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C5251	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5054	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C5401	1-126-967-11	ELECT 47MF	20% 16V
C5055	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C5402	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5056	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C5409	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5057	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C5411	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5058	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C5412	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5059	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	C5413	1-104-664-11	ELECT 47MF	20% 25V
C5073	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C5414	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C5415	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C5416	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C5417	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C5418	1-165-319-11	CERAMIC CHIP 0.1MF	50V





REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C5419	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C5641	1-126-967-11	ELECT 47MF	20% 16V
C5420	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C5642	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5421	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C5643	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5422	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C5644	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C5423	1-126-967-11	ELECT 47MF	20% 10V	<CONNECTOR>			
C5424	1-126-967-11	ELECT 47MF	20% 10V	CN5001	1-691-093-21	CONNECTOR, FFC (ZIF) 20P	
C5425	1-165-319-11	CERAMIC CHIP 0.1MF	50V	CN5002	1-691-093-21	CONNECTOR, FFC (ZIF) 20P	
C5426	1-165-319-11	CERAMIC CHIP 0.1MF	50V	CN5003	1-691-093-21	CONNECTOR, FFC (ZIF) 20P	
C5427	1-104-664-11	ELECT 47MF	20% 25V	CN5201*	1-564-524-11	PLUG, CONNECTOR 9P	
C5428	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	CN5202*	1-564-525-11	PLUG, CONNECTOR 10P	
C5429	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	<DIODE>			
C5430	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	D5001	8-719-002-81	DIODE 1T363	
C5431	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	D5002	8-719-002-81	DIODE 1T363	
C5432	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5003	8-719-002-81	DIODE 1T363	
C5433	1-126-964-11	ELECT 10MF	20% 50V	D5034	8-719-158-07	DIODE RD4.7SB	
C5434	1-104-664-11	ELECT 47MF	20% 25V	D5035	8-719-158-07	DIODE RD4.7SB	
C5435	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5040	8-719-404-49	DIODE MA111	
C5436	1-126-967-11	ELECT 47MF	20% 16V	D5041	8-719-404-49	DIODE MA111	
C5437	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5043	8-719-420-51	DIODE MA729	
C5440	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5044	8-719-404-49	DIODE MA111	
C5441	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5045	8-719-404-49	DIODE MA111	
C5442	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5046	8-719-404-49	DIODE MA111	
C5601	1-126-967-11	ELECT 47MF	20% 16V	D5047	8-719-404-49	DIODE MA111	
C5602	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5048	8-719-404-49	DIODE MA111	
C5605	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5049	8-719-404-49	DIODE MA111	
C5608	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5201	8-719-404-49	DIODE MA111	
C5609	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5202	8-719-801-78	DIODE 1SS184	
C5610	1-104-664-11	ELECT 47MF	20% 25V	D5214	8-719-404-49	DIODE MA111	
C5611	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5401	8-719-404-49	DIODE MA111	
C5612	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5402	8-719-801-78	DIODE 1SS184	
C5613	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5414	8-719-404-49	DIODE MA111	
C5614	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5601	8-719-404-49	DIODE MA111	
C5615	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5602	8-719-801-78	DIODE 1SS184	
C5616	1-165-319-11	CERAMIC CHIP 0.1MF	50V	D5614	8-719-404-49	DIODE MA111	
C5617	1-165-319-11	CERAMIC CHIP 0.1MF	50V	<FERRITE BEAD>			
C5618	1-165-319-11	CERAMIC CHIP 0.1MF	50V	FB5001	1-543-813-21	FILTER, EMI	
C5619	1-165-319-11	CERAMIC CHIP 0.1MF	50V	FB5002	1-543-813-21	FILTER, EMI	
C5620	1-126-967-11	ELECT 47MF	20% 10V	FB5003	1-543-813-21	FILTER, EMI	
C5621	1-126-967-11	ELECT 47MF	20% 10V	FB5004	1-543-813-21	FILTER, EMI	
C5622	1-165-319-11	CERAMIC CHIP 0.1MF	50V	FB5005	1-543-813-21	FILTER, EMI	
C5623	1-165-319-11	CERAMIC CHIP 0.1MF	50V	FB5010	1-543-813-21	FILTER, EMI	
C5624	1-104-664-11	ELECT 47MF	20% 25V	FB5011	1-543-813-21	FILTER, EMI	
C5625	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	FB5012	1-543-813-21	FILTER, EMI	
C5626	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	FB5013	1-412-364-11	INDUCTOR 0UH	
C5627	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	FB5014	1-412-364-11	INDUCTOR 0UH	
C5628	1-107-689-21	TANTAL. CHIP 1MF	20% 35V	FB5015	1-412-364-11	INDUCTOR 0UH	
C5629	1-165-319-11	CERAMIC CHIP 0.1MF	50V	FB5016	1-412-364-11	INDUCTOR 0UH	
C5630	1-126-964-11	ELECT 10MF	20% 50V	FB5017	1-412-364-11	INDUCTOR 0UH	
C5631	1-104-664-11	ELECT 47MF	20% 25V	FB5018	1-412-364-11	INDUCTOR 0UH	
C5632	1-165-319-11	CERAMIC CHIP 0.1MF	50V	FB5019	1-412-364-11	INDUCTOR 0UH	
C5633	1-126-967-11	ELECT 47MF	20% 16V				
C5634	1-126-967-11	ELECT 47MF	20% 16V				
C5635	1-165-319-11	CERAMIC CHIP 0.1MF	50V				
C5636	1-126-967-11	ELECT 47MF	20% 16V				
C5637	1-165-319-11	CERAMIC CHIP 0.1MF	50V				
C5640	1-165-319-11	CERAMIC CHIP 0.1MF	50V				

- 115 -



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q5609	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5057	1-216-295-00	CONDUCTOR, CHIP	
Q5614	8-729-216-22	TRANSISTOR 2SA1162-G		R5058	1-216-295-00	CONDUCTOR, CHIP	
Q5615	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5059	1-216-295-00	CONDUCTOR, CHIP	
Q5616	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5060	1-216-295-00	CONDUCTOR, CHIP	
Q5617	8-729-216-22	TRANSISTOR 2SA1162-G		R5063	1-208-845-11	METAL GLAZE 1M	5% 1/10W
Q5618	8-729-216-22	TRANSISTOR 2SA1162-G		R5064	1-208-845-11	METAL GLAZE 1M	5% 1/10W
Q5619	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5065	1-208-845-11	METAL GLAZE 1M	5% 1/10W
Q5620	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5066	1-208-845-11	METAL GLAZE 1M	5% 1/10W
Q5621	8-729-216-22	TRANSISTOR 2SA1162-G		R5071	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q5622	8-729-216-22	TRANSISTOR 2SA1162-G		R5072	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q5623	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5073	1-216-019-00	METAL GLAZE 56	5% 1/10W
Q5624	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5074	1-216-019-00	METAL GLAZE 56	5% 1/10W
Q5625	8-729-216-22	TRANSISTOR 2SA1162-G		R5087	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q5626	8-729-216-22	TRANSISTOR 2SA1162-G		R5089	1-216-295-00	CONDUCTOR, CHIP	
Q5627	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5092	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q5628	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5093	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q5629	8-729-216-22	TRANSISTOR 2SA1162-G		R5094	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q5632	8-729-216-22	TRANSISTOR 2SA1162-G		R5095	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q5634	8-729-920-74	TRANSISTOR 2SC2412K-QR		R5097	1-216-025-00	METAL GLAZE 100	5% 1/10W
<RESISTOR>				R5098	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R5001	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R5099	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R5002	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R5100	1-216-025-00	METAL GLAZE 100	5% 1/10W
R5003	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R5101	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R5006	1-216-295-00	CONDUCTOR, CHIP		R5103	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R5007	1-216-025-00	METAL GLAZE 100	5% 1/10W	R5106	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R5008	1-216-025-00	METAL GLAZE 100	5% 1/10W	R5107	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R5017	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R5108	1-216-664-11	METAL CHIP 3.6K	0.50%1/10W
R5019	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R5109	1-216-631-11	METAL CHIP 150	0.50%1/10W
R5028	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R5110	1-216-641-11	METAL CHIP 390	0.50%1/10W
R5029	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R5120	1-216-295-00	CONDUCTOR, CHIP	
R5030	1-216-689-11	METAL GLAZE 39K	5% 1/10W	R5121	1-216-295-00	CONDUCTOR, CHIP	
R5031	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R5122	1-216-295-00	CONDUCTOR, CHIP	
R5032	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R5123	1-216-295-00	CONDUCTOR, CHIP	
R5033	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5124	1-216-027-00	METAL GLAZE 120	5% 1/10W
R5034	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5125	1-216-027-00	METAL GLAZE 120	5% 1/10W
R5035	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R5126	1-216-027-00	METAL GLAZE 120	5% 1/10W
R5036	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R5201	1-216-001-00	METAL GLAZE 10	5% 1/10W
R5037	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R5202	1-216-398-11	METAL OXIDE 5.6	5% 3W F
R5038	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R5203	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R5039	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R5205	1-216-295-00	CONDUCTOR, CHIP	
R5040	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R5206	1-216-039-00	METAL GLAZE 390	5% 1/10W
R5041	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5207	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
R5042	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5208	1-216-619-11	METAL CHIP 47	0.50%1/10W
R5043	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R5209	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R5044	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R5210	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R5045	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5211	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R5046	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5212	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W
R5047	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R5213	1-216-647-11	METAL CHIP 680	0.50%1/10W
R5048	1-216-689-11	METAL GLAZE 39K	5% 1/10W	R5214	1-208-774-11	METAL CHIP 470	0.50%1/10W
R5049	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R5215	1-216-017-71	METAL GLAZE 47	5% 1/10W
R5050	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R5216	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W
R5051	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R5218	1-216-043-91	METAL GLAZE 560	5% 1/10W
R5052	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5219	1-208-803-11	METAL CHIP 7.5K	0.50%1/10W
R5053	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5220	1-208-810-11	METAL CHIP 15K	0.50%1/10W
				R5221	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R5222	1-216-295-00	CONDUCTOR, CHIP	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R5223	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5293	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R5224	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R5294	1-208-774-11	METAL CHIP 470	0.50%1/10W
R5226	1-216-295-00	CONDUCTOR, CHIP		R5295	1-216-017-71	METAL GLAZE 47	5% 1/10W
R5227	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W	R5296	1-208-812-11	METAL CHIP 18K	0.50%1/10W
R5228	1-216-671-11	METAL CHIP 6.8K	0.50%1/10W				
R5229	1-216-667-11	METAL CHIP 4.7K	0.50%1/10W	R5297	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W
R5230	1-216-673-11	METAL CHIP 8.2K	0.50%1/10W	R5298	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R5231	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R5301	1-216-295-00	CONDUCTOR, CHIP	
R5232	1-216-295-00	CONDUCTOR, CHIP		R5302	1-216-295-00	CONDUCTOR, CHIP	
R5233	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5305	1-216-025-00	METAL GLAZE 100	5% 1/10W
R5234	1-216-295-00	CONDUCTOR, CHIP		R5306	1-216-025-00	METAL GLAZE 100	5% 1/10W
R5235	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5401	1-216-001-00	METAL GLAZE 10	5% 1/10W
R5236	1-216-295-00	CONDUCTOR, CHIP		R5402	1-216-295-00	CONDUCTOR, CHIP	
R5237	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5403	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R5238	1-216-660-11	METAL CHIP 2.4K	0.50%1/10W	R5405	1-216-295-00	CONDUCTOR, CHIP	
R5239	1-216-666-11	METAL CHIP 4.3K	0.50%1/10W	R5406	1-216-039-00	METAL GLAZE 390	5% 1/10W
R5240	1-216-295-00	CONDUCTOR, CHIP		R5407	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
R5241	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5408	1-216-619-11	METAL CHIP 47	0.50%1/10W
R5242	1-216-295-00	CONDUCTOR, CHIP		R5409	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R5243	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5410	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R5244	1-216-295-00	CONDUCTOR, CHIP		R5411	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5245	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5412	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W
R5246	1-216-295-00	CONDUCTOR, CHIP		R5413	1-216-647-11	METAL CHIP 680	0.50%1/10W
R5248	1-216-295-00	CONDUCTOR, CHIP		R5414	1-208-774-11	METAL CHIP 470	0.50%1/10W
R5249	1-216-295-00	CONDUCTOR, CHIP		R5415	1-216-017-71	METAL GLAZE 47	5% 1/10W
R5250	1-216-111-91	METAL GLAZE 390K	5% 1/10W	R5416	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W
R5252	1-216-111-91	METAL GLAZE 390K	5% 1/10W	R5418	1-216-043-91	METAL GLAZE 560	5% 1/10W
R5253	1-216-111-91	METAL GLAZE 390K	5% 1/10W	R5422	1-216-295-00	CONDUCTOR, CHIP	
R5254	1-216-111-91	METAL GLAZE 390K	5% 1/10W	R5423	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5256	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5424	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R5257	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5430	1-216-295-00	CONDUCTOR, CHIP	
R5258	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5431	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W
R5259	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5432	1-216-671-11	METAL CHIP 6.8K	0.50%1/10W
R5260	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5433	1-216-667-11	METAL CHIP 4.7K	0.50%1/10W
R5261	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5434	1-216-673-11	METAL CHIP 8.2K	0.50%1/10W
R5262	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5435	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R5263	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5436	1-216-295-00	CONDUCTOR, CHIP	
R5264	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5437	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5265	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5438	1-216-295-00	CONDUCTOR, CHIP	
R5266	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5439	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5267	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5440	1-216-295-00	CONDUCTOR, CHIP	
R5268	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5441	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5269	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5442	1-216-660-11	METAL CHIP 2.4K	0.50%1/10W
R5270	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5443	1-216-666-11	METAL CHIP 4.3K	0.50%1/10W
R5271	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5444	1-216-295-00	CONDUCTOR, CHIP	
R5272	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5445	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5273	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5446	1-216-295-00	CONDUCTOR, CHIP	
R5274	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5447	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5275	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5448	1-216-295-00	CONDUCTOR, CHIP	
R5276	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5449	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5285	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R5452	1-216-295-00	CONDUCTOR, CHIP	
R5286	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R5453	1-216-295-00	CONDUCTOR, CHIP	
R5287	1-216-025-00	METAL GLAZE 100	5% 1/10W	R5455	1-216-111-91	METAL GLAZE 390K	5% 1/10W
R5288	1-216-295-00	CONDUCTOR, CHIP		R5456	1-216-111-91	METAL GLAZE 390K	5% 1/10W
R5290	1-216-619-11	METAL CHIP 47	0.50%1/10W	R5457	1-216-111-91	METAL GLAZE 390K	5% 1/10W
R5292	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R5458	1-216-111-91	METAL GLAZE 390K	5% 1/10W
				R5459	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R5460	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5636	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5461	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5637	1-216-295-00	CONDUCTOR, CHIP	
R5462	1-216-298-00	METAL GLAZE 2.2	5% 1/10W				
R5463	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5638	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5464	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5639	1-216-660-11	METAL CHIP 2.4K	0.50%1/10W
R5465	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5640	1-216-666-11	METAL CHIP 4.3K	0.50%1/10W
R5466	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5641	1-216-295-00	CONDUCTOR, CHIP	
R5467	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5642	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5468	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5643	1-216-295-00	CONDUCTOR, CHIP	
R5469	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5644	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5470	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5645	1-216-295-00	CONDUCTOR, CHIP	
R5471	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5646	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5472	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5649	1-216-295-00	CONDUCTOR, CHIP	
R5473	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5650	1-216-295-00	CONDUCTOR, CHIP	
R5474	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5652	1-216-111-91	METAL GLAZE 390K	5% 1/10W
R5475	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5653	1-216-111-91	METAL GLAZE 390K	5% 1/10W
R5476	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5654	1-216-111-91	METAL GLAZE 390K	5% 1/10W
R5477	1-216-298-00	METAL GLAZE 2.2	5% 1/10W	R5655	1-216-111-91	METAL GLAZE 390K	5% 1/10W
R5478	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5656	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5479	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5657	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5484	1-216-295-00	CONDUCTOR, CHIP		R5658	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5486	1-216-619-11	METAL CHIP 47	0.50%1/10W	R5659	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5488	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R5670	1-216-001-00	METAL GLAZE 10	5% 1/10W
R5489	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R5671	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5490	1-208-774-11	METAL CHIP 470	0.50%1/10W	R5672	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5491	1-216-017-71	METAL GLAZE 47	5% 1/10W	R5673	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5494	1-216-025-00	METAL GLAZE 100	5% 1/10W	R5674	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5495	1-216-025-00	METAL GLAZE 100	5% 1/10W	R5675	1-216-001-00	METAL GLAZE 10	5% 1/10W
R5601	1-216-001-00	METAL GLAZE 10	5% 1/10W	R5676	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5602	1-216-295-00	CONDUCTOR, CHIP		R5677	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5603	1-208-845-11	METAL GLAZE 1M	5% 1/10W	R5678	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5605	1-216-295-00	CONDUCTOR, CHIP		R5679	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5606	1-216-039-00	METAL GLAZE 390	5% 1/10W	R5680	1-216-001-00	METAL GLAZE 10	5% 1/10W
R5607	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	R5681	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5608	1-216-619-11	METAL CHIP 47	0.50%1/10W	R5682	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R5609	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R5683	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5610	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R5684	1-216-298-00	METAL GLAZE 2.2	5% 1/10W
R5611	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R5685	1-216-001-00	METAL GLAZE 10	5% 1/10W
R5612	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W	R5686	1-216-001-00	METAL GLAZE 10	5% 1/10W
R5613	1-216-647-11	METAL CHIP 680	0.50%1/10W	R5687	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R5614	1-208-774-11	METAL CHIP 470	0.50%1/10W	R5688	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R5615	1-216-017-71	METAL GLAZE 47	5% 1/10W	R5689	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R5616	1-216-664-11	METAL CHIP 3.6K	0.50%1/10W	R5691	1-216-025-00	METAL GLAZE 100	5% 1/10W
R5618	1-216-043-91	METAL GLAZE 560	5% 1/10W	R5692	1-216-025-00	METAL GLAZE 100	5% 1/10W
R5622	1-216-295-00	CONDUCTOR, CHIP		R5693	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R5623	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5694	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R5624	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R5699	1-216-295-00	CONDUCTOR, CHIP	
R5627	1-216-295-00	CONDUCTOR, CHIP		R5700	1-216-295-00	CONDUCTOR, CHIP	
R5628	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W	R5701	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R5629	1-216-671-11	METAL CHIP 6.8K	0.50%1/10W	R5703	1-216-295-00	CONDUCTOR, CHIP	
R5630	1-216-667-11	METAL CHIP 4.7K	0.50%1/10W	R5705	1-216-655-11	METAL CHIP 1.5K	0.50%1/10W
R5631	1-216-673-11	METAL CHIP 8.2K	0.50%1/10W	R5707	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R5632	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R5708	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R5633	1-216-295-00	CONDUCTOR, CHIP		R5709	1-208-774-11	METAL CHIP 470	0.50%1/10W
R5634	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5710	1-216-017-71	METAL GLAZE 47	5% 1/10W
R5635	1-216-295-00	CONDUCTOR, CHIP		R5711	1-216-077-00	METAL GLAZE 15K	5% 1/10W
				R5714	1-216-025-00	METAL GLAZE 100	5% 1/10W



- 119 -

KL-37W1/37W1K/37W1U RM-838  
KL-50W1/50W1K/50W1U RM-838




REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>				C2908	1-163-263-11	CERAMIC CHIP 330pF	5% 50V
R8002	1-216-037-00	METAL GLAZE 330	5% 1/10W	C2909	1-101-004-00	CERAMIC 0.01MF	50V
R8003	1-216-037-00	METAL GLAZE 330	5% 1/10W	C2910	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
R8004	1-216-037-00	METAL GLAZE 330	5% 1/10W	C2911	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
R8006	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C2912	1-163-263-11	CERAMIC CHIP 330pF	5% 50V
R8008	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	C2913	1-163-263-11	CERAMIC CHIP 330pF	5% 50V
R8010	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	C2914	1-163-263-11	CERAMIC CHIP 330pF	5% 50V
R8012	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C2915	1-163-263-11	CERAMIC CHIP 330pF	5% 50V
R8013	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C2916	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V
R8017	1-216-295-00	CONDUCTOR, CHIP		C2917	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V
R8018	1-216-295-00	CONDUCTOR, CHIP		C2918	1-163-121-00	CERAMIC CHIP 150pF	5% 50V
R8019	1-216-295-00	CONDUCTOR, CHIP		C2919	1-163-121-00	CERAMIC CHIP 150pF	5% 50V
R8020	1-216-037-00	METAL GLAZE 330	5% 1/10W	C2920	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V
R8021	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	C2921	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V
R8022	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	C2922	1-126-967-11	ELECT 47MF	20% 16V
<SWITCH>				C2923	1-164-346-11	CERAMIC CHIP 1MF	16V
S8001	1-571-731-11	SWITCH, TACTIL [MODE CHANGE]		C2924	1-126-967-11	ELECT 47MF	20% 16V
S8003	1-571-731-11	SWITCH, TACTIL [VOL (-)]		C2925	1-126-967-11	ELECT 47MF	20% 16V
S8005	1-571-731-11	SWITCH, TACTIL [VOL (+)]		C2926	1-164-346-11	CERAMIC CHIP 1MF	16V
S8008	1-571-731-11	SWITCH, TACTIL [CH (-)]		C2928	1-126-967-11	ELECT 47MF	20% 16V
S8010	1-571-731-11	SWITCH, TACTIL [CH (+)]		C2929	1-126-967-11	ELECT 47MF	20% 16V
*****				C2930	1-126-967-11	ELECT 47MF	20% 16V
* A-1388-189-A J BOARD, COMPLETE				C2931	1-164-346-11	CERAMIC CHIP 1MF	16V
*****				C2932	1-164-346-11	CERAMIC CHIP 1MF	16V
<CAPACITOR>				C2933	1-126-967-11	ELECT 47MF	20% 16V
C2003	1-126-964-11	ELECT 10MF	20% 50V	C2935	1-126-967-11	ELECT 47MF	20% 16V
C2004	1-126-964-11	ELECT 10MF	20% 50V	C2936	1-164-346-11	CERAMIC CHIP 1MF	16V
C2005	1-126-967-11	ELECT 47MF	20% 16V	C2937	1-164-346-11	CERAMIC CHIP 1MF	16V
C2006	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C2938	1-126-967-11	ELECT 47MF	20% 16V
C2401	1-164-005-11	CERAMIC CHIP 0.47MF	16V	C2939	1-102-119-00	CERAMIC 0.0015MF	10% 50V
C2402	1-126-933-11	ELECT 100MF	20% 16V	C2940	1-102-119-00	CERAMIC 0.0015MF	10% 50V
C2403	1-164-005-11	CERAMIC CHIP 0.47MF	16V	<CONNECTOR>			
C2410	1-126-966-11	ELECT 33MF	20% 50V	CN2806	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
C2421	1-126-967-11	ELECT 47MF	20% 16V	CN2823*	1-564-524-11	PLUG, CONNECTOR 9P	
C2422	1-126-967-11	ELECT 47MF	20% 16V	<DIODE>			
C2423	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D2001	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2424	1-163-263-11	CERAMIC CHIP 330pF	5% 50V	D2002	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2425	1-163-263-11	CERAMIC CHIP 330pF	5% 50V	D2401	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2426	1-126-967-11	ELECT 47MF	20% 16V	D2403	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2427	1-164-346-11	CERAMIC CHIP 1MF	16V	D2405	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2428	1-164-346-11	CERAMIC CHIP 1MF	16V	D2406	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2429	1-104-661-91	ELECT 330MF	20% 16V	D2407	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2430	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D2901	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2901	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	D2902	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2902	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	D2903	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2904	1-163-263-11	CERAMIC CHIP 330pF	5% 50V	D2904	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2905	1-163-263-11	CERAMIC CHIP 330pF	5% 50V	D2905	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2906	1-101-004-00	CERAMIC 0.01MF	50V	D2906	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C2907	1-163-263-11	CERAMIC CHIP 330pF	5% 50V	D2907	8-719-923-60	DIODE MTZJ-T-77-9.1A	
				D2908	8-719-923-60	DIODE MTZJ-T-77-9.1A	
				D2909	8-719-923-60	DIODE MTZJ-T-77-9.1A	
				D2910	8-719-923-60	DIODE MTZJ-T-77-9.1A	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D2911	8-719-923-60	DIODE MTZJ-T-77-9.1A		JR2902	1-216-295-00	CONDUCTOR, CHIP	
D2913	8-719-923-60	DIODE MTZJ-T-77-9.1A		JR2903	1-216-295-00	CONDUCTOR, CHIP	
D2914	8-719-923-60	DIODE MTZJ-T-77-9.1A					
D2915	8-719-923-60	DIODE MTZJ-T-77-9.1A				<TRANSISTOR>	
D2916	8-719-923-60	DIODE MTZJ-T-77-9.1A		Q2001	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2917	8-719-923-60	DIODE MTZJ-T-77-9.1A		Q2002	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2919	8-719-923-60	DIODE MTZJ-T-77-9.1A		Q2401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2920	8-719-923-60	DIODE MTZJ-T-77-9.1A		Q2402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2921	8-719-923-60	DIODE MTZJ-T-77-9.1A		Q2403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2922	8-719-923-60	DIODE MTZJ-T-77-9.1A		Q2404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2923	8-719-923-60	DIODE MTZJ-T-77-9.1A					
D2924	8-719-923-60	DIODE MTZJ-T-77-9.1A				<RESISTOR>	
D2925	8-719-923-60	DIODE MTZJ-T-77-9.1A		R2003	1-216-113-00	METAL GLAZE 470K	5% 1/10W
D2926	8-719-923-60	DIODE MTZJ-T-77-9.1A		R2005	1-216-113-00	METAL GLAZE 470K	5% 1/10W
D2927	8-719-923-60	DIODE MTZJ-T-77-9.1A		R2006	1-249-421-11	CARBON 2.2K	5% 1/4W
D2928	8-719-923-60	DIODE MTZJ-T-77-9.1A		R2007	1-249-421-11	CARBON 2.2K	5% 1/4W
D2930	8-719-923-60	DIODE MTZJ-T-77-9.1A		R2401	1-216-009-00	METAL GLAZE 22	5% 1/10W
D2931	8-719-923-60	DIODE MTZJ-T-77-9.1A		R2403	1-216-025-00	METAL GLAZE 100	5% 1/10W
D2932	8-719-923-60	DIODE MTZJ-T-77-9.1A		R2404	1-216-158-00	METAL GLAZE 22	5% 1/8W
		<IC>		R2405	1-216-025-00	METAL GLAZE 100	5% 1/10W
IC2401	8-752-068-46	IC CXA1855S		R2406	1-216-158-00	METAL GLAZE 22	5% 1/8W
IC2402	8-759-073-00	IC TEA2114		R2407	1-216-025-00	METAL GLAZE 100	5% 1/10W
		<JACK>		R2410	1-216-174-00	METAL GLAZE 100	5% 1/8W
J2001	1-537-505-11	TERMINAL BOARD (2P)		R2411	1-216-174-00	METAL GLAZE 100	5% 1/8W
J2901	1-695-296-11	TERMINAL BLOCK, S		R2412	1-216-022-00	METAL GLAZE 75	5% 1/10W
J2903	1-695-549-11	SOCKET, PIN 21P		R2413	1-216-022-00	METAL GLAZE 75	5% 1/10W
J2904	1-695-296-11	TERMINAL BLOCK, S		R2414	1-216-022-00	METAL GLAZE 75	5% 1/10W
J2905	1-695-549-11	SOCKET, PIN 21P		R2416	1-216-113-00	METAL GLAZE 470K	5% 1/10W
J2906	1-695-296-11	TERMINAL BLOCK, S		R2417	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
J2907	1-695-549-11	SOCKET, PIN 21P		R2419	1-216-113-00	METAL GLAZE 470K	5% 1/10W
		<CHIP CONDUCTOR>		R2420	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
JR1	1-216-295-00	CONDUCTOR, CHIP		R2421	1-216-022-00	METAL GLAZE 75	5% 1/10W
JR4	1-216-296-00	CONDUCTOR, CHIP		R2423	1-216-015-00	METAL GLAZE 39	5% 1/10W
JR5	1-216-295-00	CONDUCTOR, CHIP		R2424	1-216-174-00	METAL GLAZE 100	5% 1/8W
JR6	1-216-295-00	CONDUCTOR, CHIP		R2425	1-216-174-00	METAL GLAZE 100	5% 1/8W
JR8	1-216-295-00	CONDUCTOR, CHIP		R2428	1-249-393-11	CARBON 10	5% 1/4W F
JR9	1-216-295-00	CONDUCTOR, CHIP		R2429	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
JR10	1-216-295-00	CONDUCTOR, CHIP		R2430	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
JR11	1-216-295-00	CONDUCTOR, CHIP		R2431	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
JR12	1-216-295-00	CONDUCTOR, CHIP		R2432	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
JR15	1-216-295-00	CONDUCTOR, CHIP		R2433	1-216-296-00	CONDUCTOR, CHIP	
JR50	1-216-296-00	CONDUCTOR, CHIP		R2434	1-216-198-91	METAL GLAZE 1K	5% 1/8W
JR51	1-216-296-00	CONDUCTOR, CHIP		R2435	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR2001	1-216-295-00	CONDUCTOR, CHIP		R2436	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR2002	1-216-295-00	CONDUCTOR, CHIP		R2437	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR2005	1-216-296-00	CONDUCTOR, CHIP		R2438	1-216-296-00	CONDUCTOR, CHIP	
JR2401	1-216-295-00	CONDUCTOR, CHIP		R2439	1-216-295-00	CONDUCTOR, CHIP	
JR2402	1-216-295-00	CONDUCTOR, CHIP		R2440	1-216-296-00	CONDUCTOR, CHIP	
JR2403	1-216-295-00	CONDUCTOR, CHIP		R2901	1-216-039-00	METAL GLAZE 390	5% 1/10W
JR2901	1-216-295-00	CONDUCTOR, CHIP		R2902	1-216-039-00	METAL GLAZE 390	5% 1/10W
				R2903	1-216-113-00	METAL GLAZE 470K	5% 1/10W
				R2904	1-216-113-00	METAL GLAZE 470K	5% 1/10W
				R2905	1-216-039-00	METAL GLAZE 390	5% 1/10W

**KL-37W1/37W1K/37W1U RM-838**  
**KL-50W1/50W1K/50W1U RM-838**



The components identified by shading and mark  are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R2906	1-216-039-00	METAL GLAZE 390	5% 1/10W	R2964	1-216-022-00	METAL GLAZE 75	5% 1/10W
R2907	1-216-171-00	METAL GLAZE 75	5% 1/8W	R2967	1-216-171-00	METAL GLAZE 75	5% 1/8W
R2908	1-216-171-00	METAL GLAZE 75	5% 1/8W	R2968	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2909	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R2910	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R2969	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2911	1-216-022-00	METAL GLAZE 75	5% 1/10W	R2970	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2913	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R2971	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2914	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R2972	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2915	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R2973	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2916	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R2974	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2917	1-216-171-00	METAL GLAZE 75	5% 1/8W	R2975	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R2918	1-216-171-00	METAL GLAZE 75	5% 1/8W	R2976	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2919	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R2977	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R2920	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W				
R2921	1-216-022-00	METAL GLAZE 75	5% 1/10W				
R2922	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R2923	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2924	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2925	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R2926	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2927	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2928	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R2929	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W				
R2930	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R2931	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W				
R2932	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R2933	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R2934	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W				
R2935	1-216-022-00	METAL GLAZE 75	5% 1/10W				
R2936	1-216-171-00	METAL GLAZE 75	5% 1/8W				
R2937	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R2938	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2939	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2940	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W				
R2941	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R2942	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2943	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R2944	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2945	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R2946	1-216-022-00	METAL GLAZE 75	5% 1/10W				
R2948	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R2949	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R2950	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W				
R2951	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W				
R2952	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R2953	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2954	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2955	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2956	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R2957	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R2958	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R2959	1-216-674-11	METAL CHIP 9.1K	0.50%1/10W				
R2960	1-216-674-11	METAL CHIP 9.1K	0.50%1/10W				
R2961	1-216-674-11	METAL CHIP 9.1K	0.50%1/10W				
R2962	1-216-022-00	METAL GLAZE 75	5% 1/10W				
R2963	1-216-022-00	METAL GLAZE 75	5% 1/10W				


The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-698-696-11	FAN, DC					
	$\Delta$ 1-765-286-11	CORD, POWER 10A/250V (except for KL-37W1U/50W1U)					
	$\Delta$ 1-776-860-11	POWER CORD, FILTER (UK) (KL-37W1U/50W1U)					
	* 1-777-539-11	CABLE, PIN					
		REMOTE COMMANDER *****					
	1-473-407-11	COMMANDER, STANDARD (RM-838)					



# SONY. SERVICE MANUAL

## LE-1 CHASSIS

MODEL	COMMANDER	DEST.
KL-37W1	RM-838	AEP
KL-37W1K	RM-838	OIRT
KL-37W1U	RM-838	UK

MODEL	COMMANDER	DEST.
KL-50W1	RM-838	AEP
KL-50W1K	RM-838	OIRT
KL-50W1U	RM-838	UK

### SUPPLEMENT-1

SUBJECT : ADD ON ADJUSTMENTS

File this supplement with the service manual.

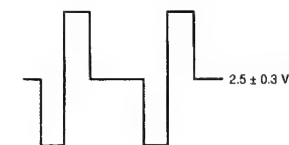
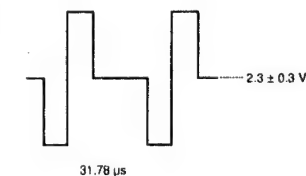
#### SECTION 3 CIRCUIT ADJUSTMENTS (See page from 22 to 28)

#### TABLE OF CONTENTS

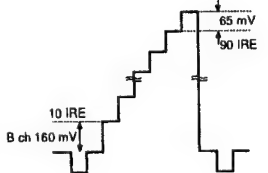
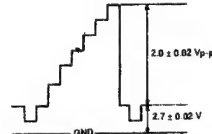
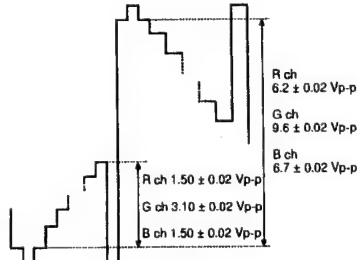
<u>Section</u>	<u>Title</u>	<u>Page</u>
C Board Adjustment .....		2
A Board Adjustment .....		6
Sub BRT, Sub PIX Adjustment .....		7
White Balance Adjustment .....		8

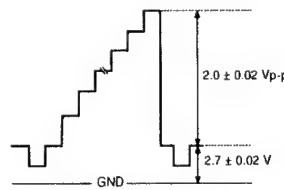


ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<b>C BOARD ADJUSTMENT</b>				
<b>1. PLL fo Adjustment</b>				
<b>(1) WIDE Mode</b>				
1) Change to "WIDE Mode".	monoscope signal	1pin of IC5004.	L5002	13.67 ± 0.1 MHz
2) Input to monoscope signal.				
3) Change "H. SYNC input" CN5202 1pin input to open (no signal).				
4) Connect 100Ω resistor between 2pin of IC5004 and TP5009, then connect frequency counter to 1pin of IC5004.				
5) Turn L5002 and adjust to 13.67 ± 0.1 MHz.				
6) Input H. SYNC for PAL double speed.				
7) Confirm that the waveform for TP5007 <RPD2> shall be Fig.				
	monoscope signal	TP5007	L5004	10.22 ± 0.05 MHz
<b>(2) 4:3 Mode</b>				
1) Change to "4 : 3 Mode".				
2) Input to monoscope signal.				
3) Change H. SYNC CN5202 1pin input to open (no signal).				
4) Connect 100Ω resistor between 2pin of IC5004 and TP5009, then connect frequency counter to 1pin of IC5004.				
5) Turn L5004 and Adjust to 10.22 ± 0.05 MHz.				
6) Input H. SYNC for PAL double speed.				
7) Confirm that the waveform of TP5004 <RPD1> shall be Fig.				
		1pin of IC5004		
		TP5004		



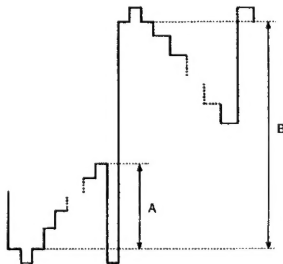
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<b>2. r curve adjustment</b> (1) Change to "WIDE Mode". (2) Input PAL double speed signal 10 step. (3) R ch 1) Connect Oscilloscope to TP5201 <R>.	PAL double speed signal 10 step.			 <i>Fig-1</i>
2) Add 2.25 ± 0.02 V to TP5211 <RLBS> 3.95 ± 0.02 V to TP5210 <RHBS> by DC power supply. (3) Confirm that the signal level under 10 IRE and above 80 IRE is increased with above condition.	Oscilloscope more than 100MHz		RV5201	 <i>Fig-2</i>
(4) Adjust RV5201 <RL, GAIN> so that signal level of "0 IRE~10 IRE" might be 130 ± 10 mV. (5) Turn RV5209 <RH GAIN> to the left direction by aplox 150° and adjust so that "90 IRE~100 IRE" might be minimum. (In Case that "100 IRE~GND" is above 3.7 V ; Adjustment is N.G)			RV5209	 <i>Fig-3</i>
(4) G ch 1) Connect Oscilloscope to TP5401 <G>.		TP5401		 <i>Fig-4</i>
2) Add 2.25 ± 0.02 V to TP5411 <GLBS> 3.95 ± 0.02 V to TP5410 <GHBS> by DC power supply. (3) Confirm that the signal level under 10 IRE and above 90 IRE is increased with above condition.	Oscilloscope		RV5401	 <i>Fig-5</i>
(4) Turn RV5401 <GL, GAIN> to the right direction and adjust so that "0 IRE~10 IRE" might be 180 ± 10 mV. (5) Change TP5411 <GLBS>, TP5410 <GHBS> to OPEN. (6) Turn RV5402 <GL, BIAS> to the left direction and adjust so that "10 IRE~40 IRE" might be 380 ± 10 mV.			RV5402	 <i>Fig-6</i>

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>(5) B ch</p> <p>1) Connect Oscilloscope to TP5601 &lt;B&gt;</p> <p>2) Add <math>2.20 \pm 0.02</math> V to TP5611 &lt;BLBS&gt; <math>3.95 \pm 0.02</math> V to TP5610 &lt;BHBS&gt; by DC power supply.</p> <p>3) Confirm that the signal level under 10 IRE and above 80 IRE is increased with above condition Fig-2</p> <p>4) Turn RV5601 &lt;BL, GAIN&gt; to the right direction and adjust so that "0 IRE~10 IRE" might be "<math>160 \pm 10</math> mV" Fig-7</p> <p>5) Turn RV5609 &lt;BH, GAIN&gt; and adjust so that "90 IRE~100 IRE" might be "<math>65 \pm 10</math> mV" (RV5609 can be adjusted at mechanical center of the VR to obtain above metioned condition. In case that "100 IRE~GND" is above 3.7 V Adjustment is N.G) Fig-7</p>	<p>Oscilloscope</p> <p>DC power supply</p>	<p>TP5601</p>	<p>RV5601</p> <p>RV5609</p>	<p> Fig-7</p> <p> Fig-8</p>
<p>(6) IC level adjustment (R ch)</p> <p>1) Change to "WIDE Mode".</p> <p>2) Input PAL double speed signal 10 step waveforms. Fig-8</p> <p>3) Add 0 V to TP5211 &lt;RLBS&gt; and 9 V to TP5210 &lt;RHBS&gt; by DC power supply.</p> <p>4) Adjust the level by RV5205 &lt;R-GAIN&gt; as "0 IRE~100 IRE" on TP5203 &lt;R-sig2&gt; is <math>1.50 \pm 0.02</math> Vp-p. Fig-9</p> <p>5) Adjust by RV5206 &lt;R-BIAS&gt; so that "Positive polarity 0 IRE~Negative polarity 0 IRE" might be <math>6.2 \pm 0.02</math> Vp-p. Fig-9</p> <p>6) By RV5203 &lt;R-S, GAIN1&gt;, RV5207 &lt;R-S, BIAS1&gt;, adjust the waveform for TP5202 &lt;R-sig1&gt; to the waveform TP5203 &lt;R-sig2&gt;. (within <math>\pm 0.02</math> V)</p>	<p>PAL double speed signal 10 step (Pedestal 2.7 V)</p> <p>DC power supply</p>	<p>TP5203</p> <p>TP5202</p> <p>TP5203</p>	<p>RV5205</p> <p>RV5207</p>	<p> Fig-9</p>

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER																																																
<p>7) By RV5204 &lt;R-S, GAIN2&gt; &amp; RV5208 &lt;R-S, BIAS2&gt;, adjust the waveform for TP5204 &lt;R-sig3&gt; to the waveform for TP5203 &lt;R-sig2&gt;. (within ± 0.02 V)</p> <p>Fig-9</p> <p>8) Confirm that the waveform for TP5203 &lt;R-sig2&gt; is within standard mentioned.</p>		TP5203 TP5204	RV5204 RV5208	<table><tr><th></th><th>R ch</th><th>G ch</th><th>B ch</th></tr><tr><td>-Sig 1</td><td>TP5202</td><td>TP5402</td><td>TP5602</td></tr><tr><td>-Sig 2</td><td>TP5203</td><td>TP5403</td><td>TP5603</td></tr><tr><td>-Sig 3</td><td>TP5204</td><td>TP5404</td><td>TP5604</td></tr><tr><td>LBS</td><td>TP5211</td><td>TP5411</td><td>TP5611</td></tr><tr><td>HBS</td><td>TP5210</td><td>TP5410</td><td>TP5610</td></tr><tr><td>-GAIN</td><td>RV5205</td><td>RV5405</td><td>RV5605</td></tr><tr><td>-BIAS</td><td>RV5206</td><td>RV5406</td><td>RV5606</td></tr><tr><td>-S.GAIN 1</td><td>RV5203</td><td>RV5403</td><td>RV5603</td></tr><tr><td>-S.BIAS 1</td><td>RV5207</td><td>RV5407</td><td>RV5607</td></tr><tr><td>-S.GAIN 2</td><td>RV5204</td><td>RV5404</td><td>RV5604</td></tr><tr><td>-S.BIAS 2</td><td>RV5208</td><td>RV5408</td><td>RV5608</td></tr></table>		R ch	G ch	B ch	-Sig 1	TP5202	TP5402	TP5602	-Sig 2	TP5203	TP5403	TP5603	-Sig 3	TP5204	TP5404	TP5604	LBS	TP5211	TP5411	TP5611	HBS	TP5210	TP5410	TP5610	-GAIN	RV5205	RV5405	RV5605	-BIAS	RV5206	RV5406	RV5606	-S.GAIN 1	RV5203	RV5403	RV5603	-S.BIAS 1	RV5207	RV5407	RV5607	-S.GAIN 2	RV5204	RV5404	RV5604	-S.BIAS 2	RV5208	RV5408	RV5608
	R ch	G ch	B ch																																																	
-Sig 1	TP5202	TP5402	TP5602																																																	
-Sig 2	TP5203	TP5403	TP5603																																																	
-Sig 3	TP5204	TP5404	TP5604																																																	
LBS	TP5211	TP5411	TP5611																																																	
HBS	TP5210	TP5410	TP5610																																																	
-GAIN	RV5205	RV5405	RV5605																																																	
-BIAS	RV5206	RV5406	RV5606																																																	
-S.GAIN 1	RV5203	RV5403	RV5603																																																	
-S.BIAS 1	RV5207	RV5407	RV5607																																																	
-S.GAIN 2	RV5204	RV5404	RV5604																																																	
-S.BIAS 2	RV5208	RV5408	RV5608																																																	
<p>(7) IC Level Adjustment (G ch)</p> <p>1) Proceed 4)~8) by the same way as R ch.</p> <p>2) Proceedure 3) to add external voltage must not be done.</p> <p>As for “related VR” and “output terminal” please refer to the Fig.</p>																																																				
<p>(8) IC Level Adjustment (B ch)</p> <p>1) Proceed 3)~8) by the same way as R ch.</p> <p>As for “related VR” and “output terminal” please refer to the Fig.</p>																																																				
<p>(9) V com Adjustment</p> <p>1) Change to “WIDE Mode”.</p> <p>2) Input PAL double speed signal 10 steps waveform.</p> <p>Fig-10</p> <p>3) Measure the voltage on TP5203 (R ch out).</p> <p>4) Adjust RV5211 &lt;RVCOM&gt; so that the voltage on TP5205 &lt;R-V comout&gt; might be -0.6 V ± 0.02 V.</p> <p>5) Measure the voltage on TP5403 (G ch out).</p> <p>6) Adjust RV5411 &lt;GVCOM&gt; so that the voltage on TP5405 (G-V com out) might be -0.5 ± 0.02 V.</p> <p>7) Measure the voltage on TP5603 (B ch out).</p> <p>8) Adjust RV5611 &lt;BVCOM&gt; so that the voltage on TP5605 &lt;R-V com out&gt; might be -0.8 V ± 0.02 V.</p>	Oscilloscope  PAL double speed signal 10 step	TP5203  TP5205 TP5403  TP5603 TP5605	RV5211   RV5411  RV5611	 <p>Fig-10</p>																																																



ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<b>A BOARD ADJUSTMENT</b> (1) Pre-adjustment on "2G" output level. 1) Change following two data as follows. CXA1839 "22 DC Tran" 1→0 "23 Dyn PIC" 2→0 2) Input 10-step swaveform on 1 Vpp (75Ω terminated value) to Video 1 input. 3) Set picture control to RESET. 4) Adjust CXA1839Q "3. Sub-CON1" so that the level from 0 IRE to 100 IRE on TP1002 "2G" can approach to 2.4 Vp-p the most. 5) Adjust CXA1839Q "1. Sub-BRT" so that the level of 0 IRE on "2G" can approach to 2.9 Vdc the most.	Oscilloscope	TP1002	CXA1839 "22DC Tran" "23Dyn PIC"  CXA1839Q "3.Sub-CON1"	
(2) HUE, COLOR Adjustment 1) Input 75% full field color bar to Video INPUT 1. 2) Adjust CXA1839Q "2. Sub COL1" so that the peak level for 2 pulse on both right and left side on TP1003 "2B" can be equal. 3) Adjust CXA1839Q "9. Sub HUE" so that the peak level of 2 pulse in the center on "2B" can be equal. 4) Return following two data. CXA1839 "22 DC Tran: 0→1 "23 Dyn PIC: 0→1	Oscilloscope	TP1003	CXA1839Q "2. Sub COL1"  CXA1839Q "9. Sub HUE"	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<b>SUB BRT, SUB PIX ADJUSTMENT</b> (1) Sub BRT Adjustment 1) Input 10 step signal to Video, 1 picture mode: smart Setup as follows PIX=90% COL=50% BRT=50% SHP=50% 2) Change two data as follows. CXA1839 "22 DC Tran" 1→0 "23 Dyn PIC" 2→0 3) Connect Oscilloscope to TP5403. 4) Adjust B with CXA2011 "3. Sub Bright" as 8.2 V ± 0.02 V. 5) Adjust A with CXA2011 "1. Drive Level" as 2.9 V ± 0.02 Vpp. 6) Return following data as follows. CXA1839 "22 DC Tran" 0→1 CXA1839 "23 Dyn PIC" 0→2	10 step signal           Oscilloscope	TP5403	CXA1839 "22 DC Tran" "23 Dyn PIC"	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<b>WHITE BALANCE ADJUSTMENT</b>				
1) Keep set with aging condition more than 15 min.				
2) Change to following data. CXA1839 "22 DC Tran"→0 "23 Dyn PIC" →0 CXD2412 "6. BL Bias"→00 "7. RL Bias" →00				
3) Input 30 IRE flat field signal.	30 IRE Flat			
4) Adjust CXA2011 "12R cutoff" and "14B cut off" can be within standard. (CXA2011 "13G cutoff" so that cutoff white balance should be fixed to 124.)	filed signal		CXA2011 12R cutoff 14B cutoff	Standard X=0.2952 with in 4JND Y=0.3047
5) Input 70 IRE flat filed signal.	70 IRE Flat			
6) Adjust CXA2011 "9R Drive" and "11B Drive" so that high light can be within standard. (CXA2011 "10G Drive" should be fixed by "31")	field signal		CXA2011 9R Drive 11B Drive	Standard X=0.2952 Y=0.3047 with in 5JND
7) Repeat 3)~6) and trucking and adjust so that both 30 IRE, 70 IRE is within standard.				
8) Input 20 IRE flat fild signal.	20 IRE Flat fild			Adjustment Center
9) Adjust with CXD2412 "7. RL Bias" or "6. BL Bias" so that can approach to adjusting center the most.	signal		CXD2412 7. RL Bias 6. BL Bias	X=0.2952 Y=0.3047
10) Return following two data. CXA1839 "22. DC Tran"→0 "23. Dyn PIC" →2				
11) Confirm that color from 0 to 100 IRE each steps on the screen should be uniform and it does not differ much from other part.	PAL 10 step signal			

# SONY. SERVICE MANUAL

## LE-1 CHASSIS


MODEL	COMMANDER	DEST.
KL-37W1	RM-838	AEP
KL-37W1K	RM-838	OIRT
KL-37W1U	RM-838	UK

MODEL	COMMANDER	DEST.
KL-50W1	RM-838	AEP
KL-50W1K	RM-838	OIRT
KL-50W1U	RM-838	UK

### CORRECTION-1

SUBJECT : A CERTAIN FIGURE WAS MISSING, AND  
THEREFORE IT IS ADDED HERE.

File this CORRECTION-1 with the service manual.

 : Indicates corrected portion

#### SECTION 3 CIRCUIT ADJUSTMENTS

##### 3-1. ELECTRICAL ADJUSTMENTS (See page 22)

Service adjustment to this model can be performed with the supplied remote commander, RM-838.

#### HOT TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing the + (plus) and - (minus) buttons on the customer front panel.

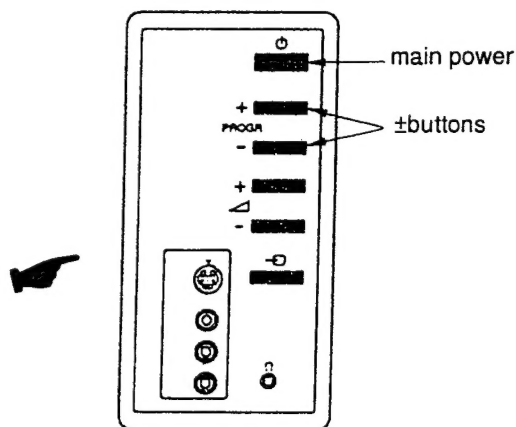


Fig. 4-1



9-965-115-91

Sony Corporation  
Display Company  
Quality Engineering Dept.

English  
96HK05683-1  
Printed in Japan  
© 1996.8

# SONY SERVICE MANUAL

# LE-1 CHASSIS


MODEL	COMMANDER	DEST.
KL-37W1	RM-838	AEP
KL-37W1K	RM-838	OIRT
KL-37W1U	RM-838	UK

MODEL	COMMANDER	DEST.
KL-50W1	RM-838	AEP
KL-50W1K	RM-838	OIRT
KL-50W1U	RM-838	UK

## CORRECTION-2

SUBJECT : CORRECTION OF REPAIR PART NO.

File this CORRECTION with the service manual.

 : Indicates corrected portion

### SECTION 5 EXPLODED VIEWS

#### 5-3. SCREEN MIRROR BLOCK AND OPTICS UNIT

[KL-37W1/37W1K/37W1U] (See page 88)

Incorrect				Correct			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
119	Δ 1-473-544-13	OPTICAL UNIT		119	Δ 1-473-544-21	OPTICAL UNIT	

#### 5-6. SCREEN MIRROR BLOCK AND OPTICS UNIT

[KL-50W1/50W1K/50W1U] (See page 91)

Incorrect				Correct			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
119	Δ 1-473-544-13	OPTICAL UNIT		119	Δ 1-473-544-21	OPTICAL UNIT	

### SECTION 6 ELECTRICAL PARTS LIST (See page 122)

Incorrect				Correct			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS *****				MISCELLANEOUS *****	
	Δ 1-473-544-13	OPTICAL UNIT			Δ 1-473-544-21	OPTICAL UNIT	



9-965-115-92

Sony Corporation  
Display Company  
Quality Engineering Dept.

English  
96LK05694-1  
Printed in Japan  
© 1996.12